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NEW PATTERNS AND STRATEGIES OF DEVELOPMENT: SRI LANKA*

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1. PAST PERFORMANCE OF THE ECONOMY

This section reviews the past performance of the economy in relation to development objectives, both economic and social.

1.1 Over-all growth

Table 1 compares the achievements of the economy in the 1960s and the 1970s with the targets of the national plans for the respective periods and the recommendations of the United Nations for the Second Development Decade. The two national plans failed to take off ground as specific programmes of implementation, yet their targets being representative of the development aspirations of the nation and indicative of what has been judged as feasible, a reference to them is useful in evaluating the actual performance.

The aim all along was a growth rate of 6 per cent. Three-fourths of this was achieved in the 1960s but with a highly uneven pattern of growth; sluggish growth in the first half of the decade showing rates as low as 2 per cent in two of the years and a short-lived spurt of high activity towards the end of the decade showing in one year a growth rate as high as 8.4 per cent. In the 1970s, the economy slided back again into sluggishness with a growth rate hovering around 3 per cent. It was the appreciable fall in the rate of population growth that enabled the country mostly in sustaining its per capita income level in the 1970s. It is only in the rather unlikely event of the economy growing at about 10 per cent in the remaining three years of the decade that it will be able to match the United Nations target for the decade.

The reasons for past shortfalls have to be looked for in the factors that constrained the mobilisation of resources, both internal and external. With a capital output ratio of 3.5[1/] a 6 per cent growth rate requires an investment of 21 per cent GNP which in turn calls for a domestic savings ratio of 18 per cent assuming that the proportion of net capital inflow in investment is 12.5 per cent.[2/] The average savings ratios of the 1960s and the 1970s were 13.2 per cent and 1-.4 per cent respectively. Evidently the society was wholly unaccustomed to a development effort at the level presupposed by the targets. The required resource mobilisation implied a substantial change in the community's preference between consumption and saving and a shift of emphasis from current to capital expenditure in public finance. The pre-requisites did not materialise,

/Table 1.

1/ Higher than the 3.25 assumed in the Five Year Plan.

2/ A figure in between the 10 per cent assumed in the Five Year Plan and the 15 per cent observed in the late 1960s.

Table 1

AV: Annual Growth Rates	10 year Plan 1959-68	Actual 1959-68	Actual 1961-70	5 year Plan 1972-76	Actual 1972-76	UNO Second Development Decade 1971-80	Actual 1971-77
Population	3	2.5	2.4	2.1	1.7 with net migration 1.9 adjusted for migration	2.5	1.7 with net migration 1.9 adjusted for migration
GDP Constant Prices	5.9	4.6	4.4	6.1	3.3	6	3.1
GDP per capita	2.9	2.1	2.0	4	1.7	3.5	1.4
Agriculture	4.7	3.9	3.1	4.9	1.2	4	1.5
Industry	11.7	6.0[1/]	6.2[1/]	10.0	1.8[1/]	8[1/]	1.8[1/]
Construction	12.7	5.2	8.3	6.0	-0.5		-1.8
All services	4.9	4.8	4.4	5.9	4.3		4.2
Exports (Volume)	2.7	2.0	1.7	7[2/]	0.2	Over 7	-1.5
Imports (Volume)	1.4	-2.5	-1.0	5[2/]	-2.0	Less than 7	+1.3
Domestic Savings	21.4 per cent in 1968	15.4 per cent in 1968	AV: Ratio 13.2 AV:An: change in ratio 0.22 percentage points	AV:Annual change in ratio 0.34 percentage points	AV:An: change in ratio -0.4 percentage points	AV:An: change in ratio 0.5 percentage points to reach 20 per cent in 1980	AV: ratio 14.2 AV: An: change 0.17 (-0.6 in 1971-1976) percentage points

1/ Manufacturing = value added in processing agricultural products + value added in factory and cottage industry

2/ Value added at constant prices

Sources - 10 year Plan, 5 year Plan, International Development Strategy for the Second UNO Development Decade, Annual Reports of the Central Bank of Ceylon.

for the savings ratio which tended to increase in the 1960s declined at the rate 0.6 percentage point annually in 1971-1976[1/] (table 1). A factor of external origin, the imported inflation, was mainly responsible for pushing up the level of the private consumption to exceedingly high levels and depressing the savings ratio in the 1970s. In a country where the increase in voluntary savings is bound to be slow and where the government controls more than one-third of the GNP the greater part of the responsibility for mobilising savings devolves on the public sector. Far from playing this role, the public sector in fact diverted a part of private sector savings to consumption. In nine of the 16 years in 1960-1976, the budgetary outturns showed deficits in the current account, the total of which was nearly twice the total of the surpluses of the other 7 years. The government failed to shift the emphasis from consumption to capital expenditure,[2/] for the share of the latter in total expenditure fell from an average of 27.5 per cent in 1966/67 to an average of 22.2 per cent in 1970-1974. In the context of severe limitations to the availability of resources to the government which arose from the low growth and narrowness of the tax base, the allocation tended to favour social welfare under political pressure pushing the growth objective to the periphery. Thus, until the basic income-consumption function of the society undergoes a radical change the United Nations target of an annual increase in the savings ratio by 0.5 percentage points will remain an unrealistically high one.

The deterioration in external trade acted as a major constraint on the mobilisation of external resources. The volume of exports rose marginally in the 1960s but tended to decline in the 1970s due to the disincentive effect of the exogenous decline in prices and certain endogenous factors which proved to be adverse to investment and productivity in the traditional exports sector (section 1.2(c)). A rise in the import prices while the export prices were falling resulted in a decline in the terms of trade that was continuous in the 1960s and very steep in the 1970s.[3/] In 1970-1976 an average of 11 per cent of the real GDP was "lost" annually due to this trend in the terms of trade and only 34 per cent of this "loss" could be made good by net long-term capital inflows. The serious impairment of the import capacity resulted in a severe curtailment of the quantum of those imported goods that were technologically necessary for production and investment. With a further weakening of import capacity under a growing burden of foreign debt servicing the economy could not

/face

1/ For the period 1970-1977 it shows an increase at 0.17 percentage points annually due to the steep increase in savings in 1977 consequent to the raising of interest rates.

2/ Under an economic and a functional classification.

3/ Its index of 148 in 1960 fell to 84 in 1970 and then to 46 in 1975.

face the import price escalation in the 1970s (global upheavals) without being pushed into the viscious circle of low growth and stringent import restrictions that prevailed upto 1977. Internally, there was a failure on the part of the economy to have prepared itself to face an unfavourable external situation that has been developing overtime. Despite the various efforts at diversification, structural economic adjustments to changing external demand structure were too slow and the country was not ready with a sufficiency of new lines of exports. Nor was the economy successful in achieving a sufficient (as in food) or an effective (as in industry - section 1.2(d)) import substitution.

The exogenous factors had repercussions on the mobilisation of domestic resources too. The import price escalation in the 1970s pushed up domestic consumption expenditure while the ensuing inflation eroded both public and private savings. Thus in respect of both internal and external resource mobilisation there was a combination of endogenous and exogenous factors which tended to reinforce each other and multiply the problems. External factors had impeded the economy's growth in varying degrees over time, but when considering that the external shocks in the 1970s were of an unusual severity and that the "exposed" economy of Sri Lanka is much vulnerable to these changes[1/] it can be said that it was the external impediments that proved to be the major constraint to growth in the 1970s. The relative importance of external and internal impediments, however, varied from sector to sector as will be seen in the succeeding sections.

The outcome of all these trends was that the fixed capital formation ratio ranged between 14 per cent and 17 per cent in all the years in 1960-1975 except for a brief spell in 1969-1972 when it was at an average of 18.5 per cent. The decline in domestic savings in the 1970s would have necessitated a fall of capital formation even to a lower level were it not for the massive build up of external liabilities, both long and short term. As the succeeding sections will show, the productivity of these investments was disappointing low in the different sectors. This factor too impacted on the rate of growth. Had the productivity been higher the economy could have grown much faster with the same sunk investment or with less borrowing from abroad.

/1.2 Analysis

1/ Sri Lanka was listed as one of the most seriously affected by these events.

1.2 Analysis of sectoral performance

(a) Agriculture. This sector being the largest productive sector, accounting for one-third of the GNP, and much more once the contributions of the processing and services sectors dependent on it are taken into account, has to furnish most of the reasons for the poor performance of the economy. Growing faster than population, and showing a relatively small short fall from the target, it gives the impression of a somewhat satisfactory performance for the 1960s (table 1). This is misleading because there were considerable variations in the sub-sectors, and much of its growth was due to the dramatic rise in the paddy subsector in the second half of that decade. In the 1970s it could hardly rise above one-fourth of the national target or one-third of the United Nations Organization target. Adverse weather was a major depressant. Appendix table 1 which summarises the effect of weather on the different crops shows a high incidence of adverse weather in the 1970s.[1/]

(b) Domestic agriculture. The 1960s opened with the prospects of exploiting the yield potential of OHYV[2/] of paddy which was twice that of traditional varieties. Thus the country was enabled (as shown in table 2) to shift the emphasis somewhat from increasing output through acreage expansion to increasing output through increased yields.

Table 2. The paddy subsector
(AV: Annual rates)

	Actual 1952-1960	Actual 1961-1970	Agricultural plan targets 1966-1970	Actual 1966-1970	5 year plan targets 1972-1976	Actual 1972-1976
Crop area	3.0	2.0	-	-	+100,000 (acres)	103,290 (acres)
Yield	2.1	3.0	5.6	12.6	-	stagnated
Output	5.0	5.0	6.1	12.0	5.5	-2.2 +2.4(1971-1977)

Sources: Draft Agricultural Development Plan 1971-1977.
Agricultural Development Proposals 1966-1970.
Central Bank Annual Reports, Statistical Pocket Book.

1/ Drought acted as a depressant both by reducing the water supply and discouraging the adoption of beneficial cultural practices, the combined effect being the depression of the immediate yields of seasonal crops and the short as well as the long term productivity of tree crops.

2/ Old high yielding varieties - the H Series of local hybrids.

/The

The striking advances in yield and production in 1966-1970 (twice as fast as the targets) shown in table 2 could be attributed mainly to the addition of an activated fourth factor, organisation and institutions, to the existing three, i.e. HYV seed, subsidized fertilizer and good producer prices. It was a "broad front" strategy, advancing on all fronts i.e. seed, credit, inputs and a system of village level planning and a two-way communication. The 1970s opened with the still greater prospects of yield increases with NHYV,[1/] but the actual experience was a negative growth in 1970-1976 despite a wide adoption of all types of HYV which soon covered more than 80 per cent of the acreage. An assured water supply, identified as the most important primary determinant of the adoption of superior and expensive technology [1], was not forthcoming due to successive years of drought (appendix table 1). The reliance was mainly on the genetic potential of NHYV and that led to a neglect of the institutional factor, particularly credit supply, until 1974 [2] The package of material inputs, (mostly imported) essential for the better performance of HYV suffered under the foreign exchange constraint e.g. fertilizer had to be reduced to half its previous level in 1974 and failed to recover until 1977. More serious was the crisis in form power; imports of 4 wheel tractors and spares having been drastically reduced since 1969, only 50 per cent of the tractor fleet in 1975 was serviceable 3 [3]. Nor was there sufficient animal power to fall back on because the farmers who had got accustomed to mechanisation had neglected animal breeding and in fact had released their animal stock for consumption as evidenced by the decline in the national buffalo herd from over 1 million in 1965 to 0.7 million in 1975[2/] [4].

There were the more basic and underlying factors which impeded a fuller utilization of the physical resources in this sector. The maintenance of the irrigation system had long suffered from an inadequate allocation of funds and the ineffectiveness of the communal organisation which was to perform that function. The transfer of the package of HYV technology was far from complete. Even during the peak performance of 1966-1970 the actual use of fertilizer fell short of the optimum by 30 per cent [6] and more or less in the same period 30 per cent to 70 per cent of the farmers in the different districts were found not to have used fertilizer [7]. There was a general failure to apply the recommended dosage and only a few of the farmers knew about or prac practised "split" application of nitrogen[3/] [8]. Transplanting practices

/could

1/ New High Yielding varieties - IR, BG series, with a yield potential least 50 per cent higher than that of OHYV.

2/ A farm power shortage besides reducing crop acreage and cropping intensity necessitates a staggering of cultivation which prevents timely sowing.

3/ The problem of timely application of fertilizer has been compounded by the defective distribution under a government monopoly.

could not extend beyond 10 per cent of the acreage. A recent study [9] reveals the existence of a yield gap[1] of 1.1 tons/hectare, the constraints identified being, inadequate and improperly timed fertilizer, inadequate insect and weed control.

(c) Plantation agriculture

Table 3. Average annual growth rates

	Gross acreage		Output per acre		Production			5 year plan targets
	1960-1970	1972-1976	1960-1970	1972-1976	1960-1965	1965-1970	1972-1976	1972-1976
Tea	0.2	-0.08	0.8	0.5	3.0	-1.0	-1.9	2.8
Rubber	-0.4	-0.27	6.2	1.5	4.0	5.8	1.9	2.2
Coconut	0.5	n.a.	0.6	n.a.	4.1	-1.8	-1.7	2.2

Technological progress provided the drive for these crops in the earlier years, for as shown in table above satisfactory growth rates were achieved up to 1965 with little or even negative expansion in the acreages. Only rubber continued to expand beyond 1965 while the others showed alarming rates of decline in the succeeding ten years. Table 4 sets out the data indicative of the current situation in inputs, investment and production in this sector along with data on past peak achievements, plan targets and optima in order to enable an evaluation of the performance. It will be seen that the various targets when compared with the respective past peak achievements were feasible and not unduly high. Fertilizer application in tea which stimulated yield increases annually at 2.9 per cent up to 1965 underwent a progressive decline thereafter [10] bringing down its level in 1976 to 60 per cent of the peak. In rubber, the application of fertilizer even at its peak was less than one-third of the tptimum and it suffered a severe decline from this level in the succeeding period. Fertilizer in coconut suffered a dramatic fall in 1970s, its level in 1976 being only a fraction of the targets and the optimum. The tea industry has failed to harness adequately its major technological breakthrough, namely, replanting with HYV (vegetatively propagated tea)

/Table 4.

1/ The difference between actual yields and the potential yield defined as the highest yield that can be obtained on farmers' fields when the critical inputs are maintained at high levels.

Table 4. Fertilizer, Replanting and Production; Trends, Targets & Achievements

	TEA			RUBBER			COCONUT		
	Fertilizer Tons	Replanting Acres	Production million lbs.	Fertilizer Tons	Replanting Acres	Production million lbs.	Fertilizer Tons	Replanting Acres	Production million nuts
Peak achievement	161,000 (1965)	6,857 (1970)	503 (1965)	22,000 (1965)	13,047 1/ (1968)	351 (1970)	63,000 (1969)	24,000 (1970)	3,148 (1964)
Actual 1976	97,637	2,758	433	7,000 (1975)	6,208	335	20,000	13,100	2,093
Annual Average 1970-1976	93,727	4,754	458	9,200	7,008	321	34,220	n.a.	2,284
Draft Agr. Plan Target for 1976	-	7,500	650	-	15,000	406	80,000	25,000	3,212
Five Year Plan Target for 1976	-	7,500	550	-	15,000	400	120,000	25,000	3,000
Optima	62,000 2/	10,000 3/	-	72,000	15,000 3/	-	200,000	-	-

1/ The annual average in 1955-1959 was 23,300

2/ Nutrients only (NPK)

3/ In terms of trade offs between current and future levels of production

Sources - Draft Agricultural Development Plan 1971-1977, Five Year Plan, Central Bank Annual Reports and Reviews of the Economy.

which has a yield potential more than three times that of seedling tea. After a progressive increase upto 1970 the replanting rate declined almost continuously and by 1976 only 11 per cent of the acreage was brought under HYV. The rapid increases in yields and production of rubber in 1960s was due to the high rates of replanting with HYV achieved in the 1950s, but this rate slackened in the 1960s and fell rapidly in the 1970s; the achievement in 1976 being less than half of the target. The fall in the replanting of coconut is most alarming since the majority of the trees is of poor genetic quality and has passed the productive age. Thus the overall picture of the plantations sector is one of a deterioration in the standards of management and a fall in investment.

The external constraints to this sector's growth were the downward pressure on prices (heavily on tea up to 1973) and the spiralling costs of production severaly squeezing the profit margins and permeating the sector with a financial stringency; the escalation in the prices of imports causing acute shortages of fertilizer, machinery, spares and transport equipment. Besides, there were the constraints of internal origin which arose from the policy and institutional framework. Export taxes and levies, the incidence of which was extremely heavy [11] when compared with competing countries, kept producer price artificially low,[1] e.g. rubber producers received only 50 per cent of the export value. The application of the over valued official exchange rate and not the incentive exchange rate for these crops meant that the growers received only a fraction of the economic value of these products to the country viz., tea 46 per cent, rubber 36 per cent, coconut 35 per cent.[2] The combined effects of these as revealed by a survey were that 50 per cent of the teas was produced at a loss while 10 per cent made profits of 0.05 cents/lb as against a minimum desirable margin of 0.25 cents/lb [12]. In an investment climate which was further darkened by threats of nationalisation and frequent acquisitions of portions of lands, the estates were soon placed on a "care and maintenance" basis by their owners [13]. The land reforms of 1972 and 1975 brought in their wake disruptions and dislocations which depressed further the productivity of these lands. To mention them briefly [14], the

/delay

1/ These taxes and levies often cancelled out what was given back in the form of rebates and subsidies.

2/ Producer prices as percentages of world prices of these commodities valued at the incentive exchange rate (FEEC).

delay of about 20 months in delegating clear final management responsibilities; the hastily set up co-operative management units lacking the strength, resources, management personnel in situ with inexperienced ones; interference from local politicians opening the way for mismanagement; indiscriminate alienation of lands which according to a survey destroyed about one-tenth of the acreage (prime tea land) including a high proportion of land planted to HYV.

The coconut industry suffered under certain additional constraints which were peculiar to it -- the relative neglect of this crop in past government programmes; the inherent limitations on expanding the supply of HYV seeds; the fall of many trees in casualty to the needs of housing and urban expansion; the socio-economic and organisational complexities of this small holder dominated crop[1/] causing problems of finance, input distribution, motivation and transfer of technology [15]; the total inadequacy of the small extension service.[2/] Coconut lands were particularly and strongly affected by the land reforms and the consequent fragmentation and the serious neglect by the new weak management entities [16].

(d) The utilization of resources in agriculture

The foregoing discussion (sections 1.2(b) and 1.2(c) invites attention to the tremendous unutilized potential of the natural resource base of agriculture. In the context of an insufficient mobilisation of physical, human and financial resources in this sector the production frontier reached by it is a false one and not the true one. Several possibilities of increasing output by correcting the chronic underutilization of resources could be identified. (1) Plantations - replanting, improved cultural practices, "infilling" vacancies[3/] in tea. (2) Paddy - improved technology, elemination of the present colossal waste of irrigation water with farmers using more than twice the amount required [17], rehabilitation and upgrading of the existing irrigation works that have deteriorated due to neglect, increased cropping intensity (3) "highlands" (lands outside the command of the gravity of irrigation) in the colonization schemes which at present are grossly underutilized [18] improved dry farming systems. (4) Rainfed lands in the wet zone - mixed farming systems.

/An

1/ 65 per cent of the area in holdings under 20 acres.

2/ About 1 extension worker per 4,000 small holders.

3/ It has been estimated that the effective crop acreage in tea could be increased by 10 per cent by merely "infilling" the vacancies accumulated over the last decade.

An effective allocation of resources necessary for the realisation of this potential has been prevented by several factors -- (a) Distortions in the prices of commodities and inputs - the effect of fiscal and exchange rate policies on producer prices of export crops, the supply of scarce water as a free good, wages of abundant labour boosted up by welfare schemes (b) Wrong investment priorities - a marked preoccupation with new irrigation projects highly intensive in their use of scarce capital and foreign exchange[1/] and long in their gestation periods while giving less attention to schemes of maintenance and rehabilitation of existing works which are relatively quicker in response, lower in capital inputs and high in labour absorption. (c) Inadequate institutional arrangements for, maintenance of irrigation works, water control, village level planning (section 1.8), finance, input distribution, marketing and extension services.

(e) Industry

Growth rate of industry in the 1970s could hardly come upto one-fifth of the national target or one-fourth of the United Nations Organization target (table 1). Compared with its performance in the previous decade (a 6 per cent growth) this sector's level of activity in the 1970s (1.8 per cent growth) reflects an acute depression. Public sector industries, most of which incorporated the modern foreign technologies and private sector industries which had blossomed out in the early 1960s in import substituting final stage manufacture[2/] (assembly or compounding of imported items) were all characterised by a high import dependency for materials and machinery. The restricted availability of these imported inputs has been a problem for them all along for even in the late 1960s when a partial liberalization of imports enabled them to grow at high rates the availability of materials actually ranged from 16 per cent to 69 per cent of the quantum needed for production at full capacity in the different industries /19/. A sharp fall in capacity utilization and a run down of machinery due to a lack of spares and replacements were therefore the inevitable results of increasing foreign exchange shortages and the rapid erosion of the meagre resources by the import price escalation in the 1970s.

/Table 5.

1/ Investment programmes in irrigation were designed primarily to obtain external financing (project assistance). Hence they acquired those characteristics.

2/ Under the propulsive force of a sheltered market provided by the import restrictions.

Table 5. Industrial sector - selected indicators
(average)

	1965-1970	1971	1974	1976
Foreign materials as per cent of total materials used	65.0	75.0	72.0	70.0
Import volume index, intermediate goods (1969 = 100)	101	96	46	68
Capacity utilised as per cent of installed capacity	n.a.	n.a.	40	64
Public sector industries, output, index (1969 = 100)	n.a.	172	211	216
Rate of growth, cottage industry	n.a.	n.a.	56.4	8.1
Industrial exports as per cent of industrial production				
(a) Including petroleum products	n.a.	n.a.	13.0	13.0
(b) Excluding petroleum products	n.a.	n.a.	6.0	6.1

Source: Central Bank Annual Reports.

As shown in above table most of the problems of industry were its own structural features. Its exports form only a negligible fraction (excluding petroleum) of its output. It has failed to effect a transition from the inward looking import substituting original phase to a second phase of outward oriented export led growth. An internal captive market starved of goods, the near monopolistic conditions enjoyed, the rise in demand for consumer durables with the increase in rural agricultural incomes in the 1960s, the disincentive effect of an overvalued currency for exports and the generous tax incentives provided to industries all contributed to make the domestic market a relatively more profitable outlet for the products and by the same token prevented them from reaching the levels of efficiency in terms of product quality and unit

/costs

costs necessary for exporting. Soon enought the internal market itself began to contract due to a consumer resistance to the high sales prices (consequent to the escalation in costs of imported inputs) and the decline in rural agriculture. Being dependent on imported supplies it remained more or less an enclave sector with "below average" linkage effects [20]. In these circumstances no dynamic and growth oriented features[1] could appear in this sector.

Public sector industries (40 per cent of industrial production) were beset with problems peculiar to them -- built in weaknesses from inception in some due to haphazard planning,[2] unrealistic pricing policies, lack of disciplined and motivated labour force, e.g. labour absenteeism in textile industry, poor calibre of managerial personnel, political interference resulting in a stifling of operational autonomy and in the acquisition of inept and superfluous staff.

(f) Construction and services

The negative growth of construction in the 1970s (table 1) is particularly disappointing because the Five-year Plan which had ambitious aims in this sector assigned 30 per cent of the total fixed investment of the plan[3] to house construction. It was this very activity which, however, suffered a decline. The impedements were -- shortages and rising costs of materials both local and imported, frequent breakdowns in their distribution, the disincentive effects of legislation in the 1970s on rent, house ownership (ceilings) and tenancy rights overwhelming the fiscal incentives and subsidies offered.

The services sector did much better than the others in the 1970s (table 1). The decline in the productive sectors had a depressing on it. The rapid expansion of tourism with earnings increasing continuously for 6 years contributed much to its growth. However, with the government desperately seeking means of appeasing the insistent demand for employment this sector was converted into a repository of idle and unproductive labour.

/1.3

1/ Where export-led growth took place, e.g. ceramics it resulted in a diversification of products, quality improvements and also a progressive substitution of local materials for imported ones [21].

2/ For example, steel (uneconomic scale), hardware (over estimation of market needs) tyre (imbalance in factory capacity) paper and sugar (raw materials problems).

3/ On any reckoning an unrealistic target.

1.3 Income distribution, incidence of mass poverty

Survey data [22] reveal a significant redistribution of incomes in 1963-1973. The chief indicators are --- a reduction in the relative share of the highest decile from 40 per cent to 30 per cent, a pattern of progressive increase in their relative shares as the deciles descend for income receivers (with the exception of one decile) and for spending units, a fall in the Gini coefficient[1] from 0.49 to 0.41, a greater fall in same for the rural sector[2] from 0.44 to 0.37, a conspicuous reduction in income inequality by educational by educational standards.

Seen against the background of static economic growth and rising unemployment (section 1.5) these achievements indicate that what took place was a distribution of an existing surplus more equally by an adjustment of the secondary flow of income through welfare schemes, taxation and wage adjustments rather than a distribution of an increment of output in favour of low income groups through a manipulation of the primary flows of incomes. Some evidence of an occurrence of the latter process, however, is provided by the domestic agricultural sector. Compared with the previous period, 1953-1963, the movement towards income equality was greater in 1963-1973 which also was the period that felt the impact of the "green revolution" most. This when considered together with the fact of the predominance of small holdings in this sector suggests that the rise in its yields and incomes played an important role in reducing income inequality. Qualifying this, however, is the possibility that certain segments within this sector may have gained more from these developments than others thereby ushering in new income disparities. The evidence available show that the wealthier or the more influential farmers having greater access to credit, irrigation and extension services, those commanding tractor services at the time of acute shortage of farm power (section 1.2(b)) and non farming groups such as middlemen have become richer at the expense of the others [23].

Some integration of the redistributive mechanism with the production process occurred in the 1970s through the rapid expansion of subsidiary food crops[3] budget.[4] The land reforms (cieling on ownership) had the immediate effect of diminishing the income sources of the rich and placing ceilings on their incomes.

/A

1/ A measure of income concentration.

2/ Which should be taken as the true index of changes as this sector accounts for 71 per cent of the population.

3/ Beginning with the ban on the imports of chillies and onions in 1970 and culminating in the "Food Drive" of 1973 to 1975.

4/ Introduced in 1974. Expenditure under this programme has redistributive effects because its funds are allocated district-wise on the basis of the population and the geographical area of each district.

A survey[1] discloses that 43 per cent of the households in 1970 fell below the income line of Rs 200 per month; an income hardly sufficient for the satisfaction of the basic needs of a family (see section 4.1). Any assessment of income redistribution in the 1970s must necessarily take into account the negative effects that the rapid deterioration of the terms of trade and the unprecedented inflationary pressures would have had on the gains of lower income groups.

1.4 Asset distribution, land reform

The developments in the industrial sector in the 1960s, namely, heavy protection, monopoly control, the advent of multinational corporations, imported modern technology, high capital intensity and generous tax concessions, all tended to a concentration of the ownership asset in this sector. Over 2,500 new industrial units were set up by a new class of entrepreneurs since 1960 and the bulk of the new companies formed were private ones with a few individuals or families dominating them. Out of a total investment of Rs 275 million in the industrial undertakings with a capitalisation over Rs 1 million, Rs 205 million was held by 11 family groups [24]. Benefitting from the environmental factors enumerated above this new class of entrepreneurs was able to amass in a few years a volume of wealth that surpassed the inherited wealth of those connected with the plantations sector [25]. In all but one of the "tax holiday companies" the profits for 5 years exceeded their equity capital; in some, the profits were 300 per cent to 500 per cent of their capital [26]. The massive dividends declared accrued to a small group of affluent share owners.

In the rural sector, on the other hand, the tendency was for a creation of new small sized properties under the various land alienation schemes, both old and new which[2] in 1964-1973 distributed about 260,000 acres. In the context of the predominant portion held by land in the ownership of wealth the land reforms of the 1970s[3] were major steps in redistributing assets. Their

/impact

1/ Socio-economic Survey 1969-1970, Department of Census & Statistics.

2/ Colonization schemes (3 acres units), village expansion schemes (1-2 acres units) highland colonization schemes (2-5 acres units) and youth settlement schemes in which lands were often de facto divided and distributed.

3/ in 1972 and 1975. The former subjected individual and private company owned lands to a ceiling of 50 acres for non paddy lands and to a cieling of 25 acres for paddy lands. The latter extended the reform measures to public company owned lands.

impact on paddy lands, however, was negligible. Considering that the average size of a paddy holding is about half an acre and that 43.6 per cent of the holdings is less than two and a half acres, the cieling for paddy lands fixed at 25 acres was too high. Thus only 1 per cent of the holdings could come under the ceiling surrendering 23,000 acres was too high. Thus only 1 per cent of the holdings could come under the ceiling surrendering 23,000 acres which when redistributed at 2 acres per family would benefit only about 11,500 families. Their impact on the size-wise distribution of all agricultural properties, however, was a most profound one.[1/] As against a national average of 0.36 acres of cultivated land per person, the average land holding of the 5,600 owner declarants under the 1972 reforms was 200 acres and this was reduced to 50 acres. The reforms resulted in the expropriation of a high proportion of the most valuable agricultural assets in the country - viz. 63 per cent of all tea lands, 32 per cent of all rubber lands and 10 per cent of all coconut lands (or one-third of coconut "estate" lands). In the country's limited share market in which the bulk of the shares comprised those of public companies engaged in these crops, the land reforms had the effect of wiping out nearly 60 per cent of the transactions. In the disposal of the expropriated plantations the options were limited by considerations of efficiency and economic scales of management. Thus the fragmentation of large estates was avoided by placing them under public corporations. About 25 per cent of the acreage was given to co-operative as a compromise between the need to preserve the scales of management and the need to broaden the ownership. Only about 5.3 per cent of the acreage could be alienated to individual villagers.

In asset distribution more meaningful than the more fact of ownership is the actual mode of use and management of the means of production. The co-operatives set up in the 1970s for the management of agricultural assets (land reform lands) and industrial units (under the DDC programme) succeeded in broad basing nominal ownership but not in enabling effective participation of the members in management i.e. self-management (sections 1.8 and 4.6)

/1.5

1/ They would have had a profound effect on coconut land where the ownership of the larger sized properties was highly concentrated. 53 per cent of the coconut acreage in holdings over 50 acres was owned by 157 persons and 32 companies, the average size of a holding being 250 acres and many of the companies being controlled by the same family groups owning large estates. 16 families owned 20 per cent of this acreage with two large families owning half of that - Source: an unpublished paper based on the registers of the Coconut Rehabilitation Board.

1.5 Employment, unemployment and underemployment

Despite its slow growth the agricultural sector was the major new employment provider for it absorbed more than one-third of the new employment in 1963-1971. Credit for this goes solely to the paddy subsector, for while employment in the plantations subsector decreased annually by 0.8 per cent,[1/] that of paddy rose annually by 6 per cent in 1953-1971. About 58 per cent of this increase is attributable to an expansion in acreage and the balance 42 per cent to the increase in labour intensity that ensued from technological improvements [27]. With its high capital intensity the industrial sector was unable to generate employment at a rate faster than 1.4 per cent annually in the 1960s. In the 1970s this sector in fact retrenched a portion of its labour when its capacity utilisation decreased (table 5). The services sector was an important new employment provider, but the various "crash employment programmes" and the overstaffing in the public sector made this sector even a bigger repository of underemployed labour than before. While the labour force grew at 2.5 per cent annually, employment could grow only at 1.6 per cent per year in 1963-1971 and it is most likely that it slowed down even further in the 1970s. The dimensions of the resultant unemployment problem and its increase over time can be seen in table 6 (if the definitional differences in the various estimates are ignored).

Table 6. Estimates of unemployment [28]

	Number	Per cent of labour force
1963 Consumer Finances Survey	457,000	13.8
Population Census	390,000	10.8
1968 Labour Force Survey	450,000	11.0
1969-1970 Socio-economic Survey	550,000	14.0
1971 Population Census	796,000	18.7
1973 Consumer Finances Survey	1,000,000	24.0
Labour Force Participation Survey	793,000	18.3
1975 Land and Labour Utilisation Survey (Based on a very small sample)	985,000	19.8

/Recent

1/ This trend continued in the 1970s.

Recent surveys have shown up the several disconcerting features in the unemployment situation. (a) A very high degree of concentration of unemployment among the youth - 40 per cent of the males and 44 per cent of the females in the age group 15-19 years and 33 per cent of both sexes in the age group 20-24 years[1/] (in 1973). Of the total unemployed in 1975, 41 per cent was in the age group 15-19 years and 52.6 per cent was in the 20-29 years age group making a total of 93.6 per cent of the unemployed to fall under 30 years of age. (b) A high degree of unemployment among educated youth - in the age group 20-24 years, 37.7 per cent of both sexes with middle level education and 47 per cent of the males and 62 per cent of the females with secondary education (in 1973).[2/] (c) A relatively higher incidence of unemployment among females, particularly the educated females. (d) Long periods of waiting for employment - 64 per cent of the unemployed has been waiting for employment for periods ranging between 2 years and 5 years.[3/] The fact that certain production activities actually suffered from a shortage of labour while the unemployed was waiting for non-manual type of employment shows that a part of the problem of unemployment was due to an imbalance between the type of employment expected and what was available. About one-third of the unemployed with secondary education was waiting for clerical type of employment and about half of them rejected work in the productive sectors /29/.

The different surveys reveal a high incidence of **underemployment**[4/] in the work force - 33 per cent in 1968, 30 per cent in 1973 and 18 per cent in 1975. Of the male work force in 1973, 5 per cent was severely underemployed, i.e. working 1-16 hours/week and 19 per cent less severely, i.e. working 16-32 hours/week.

/1.6

1/ Labour force Participation Survey (1973). The consumer Finances Survey for the same year gives - 65.8 per cent of the age group 14-18 years and 47.5 per cent of the age group 19-25 years.

2/ Ibid. The consumer Finances Survey gives - 37 per cent of the persons with secondary education, 47 per cent of the persons with "O" level, 44 per cent of the persons with "A" level.

3/ A survey of the Marga Institute, People's Bank Economic Review, July 1977. The Census (1971) report shows that 29 per cent of the persons actively seeking work were looking for work for more than 3 years.

4/ In terms of duration of work.

1.6 Urbanization, urban-rural balance

All indicators show that the country's urban-rural balance has remained virtually unaltered in 1963-1971 the rate of growth of urban population[1/] was almost identical with that of total population [30] and the share of urban population in total population increased only marginally from 21.8 per cent in 22.3 per cent. A low level of urbanization is indicated by the fact that only 16 per cent of the urban population lives in towns with more than 20,000 persons. The adjustment between land and population in the rural areas effected by land alienation schemes and private tenurial arrangements, [31] the rise in rural incomes due to increased agricultural production and higher producer prices, the welfare measures of successive governments, the more equitable distribution of health and educational facilities and the availability of cheap and convenient travel facilities within the country all contributed to retain the rural population in their own environments without creating compelling pressures for out migration. Nor were there any great pull factors to cities, due mainly to, - the absence of a rapid industrial employment expansion[2/], the spatial distribution of public industrial enterprises, the contraction of commerce and harbour-based services of the capital city[3/] and the narrowing of the gap between rural and urban incomes in the lower income categories.

1.7 Demographic trends

The available evidence indicates that Sri Lanka which experienced an unprecedented population growth rate of 2.7 per cent consequent to the precipitious fall in the death rate in the post-war period has now entered the third phase of demographic transition characterised by a declining birth rate and a death rate that has stabilized itself at the low level of 8 per thousand.

/The

1/ Urban population figures of the 1971 census adjusted for comparability with those of the 1963 census.

2/ As reflected in an unaltered sectoral distribution of employment.

3/ Which were formerly the chief factors in the growth of Colombo.

The crude birth rate declined at an average annual rate of 1.8 per cent in the 1960s and at a still faster rate of 2.2 per cent annually in 1970-1974. Its decline in the more recent period is taken as a reflection of a decisive decline in marital fertility. Strong evidence for this is furnished by all the refined statistical measures.[1/] Age-specific fertility rates reveal declining trends for all age groups. [32] The reason for this trend is that the age of marriage and the proportion marrying have changed in the direction of delayed and reduced marriages. The average age of marriage of females has risen by 1.4 years in 1963-1971[2/] and the proportion of married females in the age group 20-24 years has fallen from 68.4 per cent to 45.9 per cent in 1941-1971. These trends were the results not of any economic growth but of certain social developments, viz, an increased proportion of females entering the educational system and remaining in it for longer periods; increased participation of females in the labour force; an increase in the proportion of non-self employment and as it has been suggested by some, the very stagnation of the economy and the lack of employment opportunities compelling a postponement of marriages. [33] An increase in the acceptance of birth control methods has been observed in the 1970s. [34] A widespread awareness among rural people of population problems together with a growing appreciation of the need for population control has been found by field studies. [35]

While the fertility decline reduced the natural growth rate of population to 1.8 per cent in the 1970s, the accelerated repatriation of Indian labour at an average of 35,000 a year[3/] brought down the total population growth rate to 1.6 per cent in the recent years. For the present, the population remains "young" and "youthful" with the proportions of the age groups 0-14 years and 15-24 years at 39 per cent and 20.7 per cent respectively and the child dependency ratio remains high at 71 per cent.

/1.8

1/ Fertility ratio, standardized crude birth rates, age - specific birth rates, total fertility, gross reproduction rates.

2/ A recent survey for 1975-1977 suggests that the age of marriage for women has risen by a further 1.6 years to reach 25.1 years in 1977. Survey by International Statistical Institute and the Department of Census and Statistics. Reported in The Sunday Times, 30.7.1978.

3/ This factor will be exhausted by 1983, the terminal year for the repatriation of Indian labour under the agreement of 1964.

1.8 People's participation in decision making and implementation

The fact that the Sri Lankians excel in participation at the national level in the parliamentary process needs no further elaboration than a reference to the high polling rates of 85 per cent at the general elections in 1970 and 1977 and the change of governments at every general election since 1952. Of equal importance, in respect of the need for personality development and free expression of each person, is the participation of persons and communities at local levels in specific matters. The 1970s witnessed a series of organizational innovations in this area. The existing institutions were reorganized and several new types of institutions were added. The result was the emergence of new types of institutions much different from the earlier ones in their representativeness, scope for participation, outlook and style of performance. Appendix table 2 summarizes their chief characteristics, particularly the composition of their decision making and executive bodies.

It will be seen that the elective principle has been wholly eliminated in the CCs and partially removed from the MPCSs (formerly they were both elected bodies) and not adopted in the newly set up APCs, PCs, and DDCs,[1/] and only partially adopted in the new co-operative ventures. With the elimination of the elective principle from the CCs and APCs, collective decision making in the domestic agricultural sector passed on to bodies not directly representative of the cultivators. In the MPCSs where it became only partially and indirectly operative the indirectly elected minority was stultified in the presence of a preponderance of government authority [36] and an appointed chairman who often completely dominated the proceedings. [37] Even at the time they were elected bodies, the MPCSs never were the media of people's expression, they being the agencies of the government for its schemes implemented under close bureaucratic control and often viewed with suspicion and distrust by the communities. [38] But with the relegation of the elective principle to an ineffective position even the tenuous link they had with the local communities was virtually severed.

/The

1/ Cultivation Committees (CCs), Multi-purpose Co-operative Societies (MPCSs), Agricultural Productivity Committees (APCs), People's Committees (PCs), Divisional Development Councils (DDCs).

The DDCs set up with the express purpose of enabling popular participation in development planning gave only a minority position to the non-official members and even this was not truly representative of the local community for it included representatives of CCs and APCs which were appointed bodies. In their actual operations, the DDCs concentrated their attention on individual projects, an exercise which depended heavily on the initiatives of the official and political elements and the expertise of the technocracy. This approach pushed into obscurity their fundamental objective of becoming the instruments of integrating the community with the development process. [39] The community was seldom consulted, planning in offices by officers was repeated on a mini-scale, [40] the non-officials being of no use in this context became dis-interested or dropped out.

Even under the erstwhile elective principle, the elections for CCs and MPCSs merely reflected the uneven distribution of socio-economic power in the villages and these bodies were often dominated by small vested interest groups such as traditional leadership of the old villages or "opportunistic leadership" of the new settlements. [41] The new system of nomination/appointment made this situation even worse. Those of the same classes as before [42] but with the correct political connexions were able to get into the CCs, APCSs, MPCSs and PCs with the difference that they being nominated/appointed tended to look upon their role as one of serving their political patrons and not as one answerable to the community. A disproportionate number of the members of these bodies was found to be from the middle and rich peasant categories and from the older generation, the tendency being to exclude from them "alienated" or "under-privileged" groups such as women, youth and the poor. [43] Instances of these privileged groups controlling these bodies acting in a discriminatory manner against the interests of the under-privileged such as the landless, the unemployed [44] and the share-croppers [45] are known. They (in the CCs and APCs) often lacked practical knowledge of agriculture, being in many instances non-cultivators, and soon lost the confidence of the farmers.

The politicization of these institutions which ensued from the system of nomination-appointment raised new obstacles in the way of popular participation, viz, -- inhibited independent decision making and local initiative; the groups

/left

left out on political grounds developed an "adversary"[1/] relationship to these institutions, those in power were often politically discriminatory in giving employment and even in their routine transactions with the public,[2/] they often used the statutory powers of these institutions to take "revenge" from their political opponents. [47] With the erosion of the popular base of the ruling political party in the 1970s these institutions were soon reduced to isolated islands of power alienated from their communities. Despite all these, it is still possible to point to the CCs as a category of institutions which provided some scope for popular participation at least by virtue of the general meeting of all cultivators which they summoned once or twice a year. It is unfortunate that the CCs which played an important role as basic units in sectoral planning in the agricultural development strategy of the late 1960s (section 1.2 (b)) were stifled in their progress.

The co-operative/collective projects established in the 1970s failed to evolve in the direction of self-management; their managements remaining externally imposed, centrally controlled and authoritarian being manned by government officers (as in Youth Settlements, Land Reform Settlements and DDC projects) or by a combination of government officers and politicians/nominees (as in electoral co-operatives) [48] Only in a few isolated instances was it possible for the official/political elements to withdraw completely [49] or sufficiently enough to enable a majority of the elected members. [50] The impediments to the evolution of self-management were -- unwillingness of the politico-bureaucracy to share power with the membership (often due to fear of losing benefits and patronage), reluctance to entrust the membership with the management of large funds, lack of efforts to train the members in self-management, prevalence among both management and membership of the traditional manager/labour attitudes and relationships (in the co-operatives set up in the nationalized estates), selection of members through a process of "recruitment" similar to that for

/regular

1/ Opposition to or non-co-operation with the schemes proposed by these bodies.

2/ Even in such routine matters as paying compensation under the crop insurance scheme in which CCs and APCs had a role [46].

regular jobs nurturing a wage-worker consciensness in the members[1/], unwillingness of the members to accept responsibility for it was easier to leave everything to the officers (as in youth settlements) [51], or because they were ill equipped to do so lacking knowledge of technology and financial management, the preference of members for individual allotments (rather than collective ownership) and for more prestigious jobs [52] (rather than manual work).

Being constituted on the elective principle and the least politicized, the RDSs[2/] offered greater scope for popular participation and in fact provided representation for the "alienated groups" such as youth and women and those excluded from other institutions on political grounds. [53] But these societies denied of strong government policy support have been dying a slow death since 1965. In the context of a vast expansion of the activities of the central government and of public corporations, the local government bodies whose functions were limited to the field of civic amenties were reduced to the position of passive observers of the rapid changes taking place around them. Most of them stood dissolved in the 1970s and no local government elections were held. It is noteworthy that these bodies, the most democratic and representative in principle, were left out of the committees of the DPA. (Appendix table 2).

The "green revolution" and the increased level of most activities in the rural sector tended to increase the socio-economic power of the traditionally influential classes while ushering in a class of new rich. The organizational innovations of the 1970s against this background often ended in a symbiotic relationship between the village elite and the politico-bureaucracy of these institutions. The resultant micro-political situations ushered in new centres of power and new power and new power gaps.

/2.

1/ Recently the "members" of DDC projects formed themselves into a union of DDC "employees".

2/ Rural Development Societies (RDSs).

2. THE FUTURE-DEVELOPMENT OBJECTIVES' PROBLEMS AND PROSPECTS

2.1 Current development objectives and programmes

No macro-economic perspective plan has been produced so far by the new government elected in 1977. The budget speech for 1978 contains a statement on its basic development objectives and aims, viz (a) Revive the economy and restore vitality to the productive sectors (b) Increase employment, particularly for the youth, (c) Reduce pressure on the balance of payments (d) Move forward from economic stagnation to economic growth and development.

The chief means of achieving these objectives are contained in an investment programme comprising 4 pivotal schemes, the implementation of which has now begun.

(1) Acceleration of the Mahaweli diversion scheme -- In its recently revised form it will consist of 6 major projects considered to be the "backbone" of the Mahaweli scheme. These will be taken up for simultaneous development. In the original master plan they would have taken 20 years to be completed, but now they will be completed within the next 5 years. Besides this scheme there are two other large hydro-power projects and some large and medium sized irrigation projects (including modernization of some existing tanks) to be executed during this period.

(2) Establishment of an Export Processing Zone (EPZ) with tax concessions, guarantees and infra-structure facilities.

(3) Colombo Metropolitan Region Development -- improvement of civic amenities, land reclamation, housing, resettlement.

(4) Construction of 100,000 new housing units.

Besides this programme there is a series of measures adopted by the new government consisting of improved old ones as well as new ones which are contributary to the objectives, particularly to the objective of resuscitating the productive sectors -- enhanced subsidies for replanting and inputs (fertilizer), increased producer prices (paddy), tax incentives for investment in the productive sectors and tax incentives for housing.

/2.2

2.2 The feasibility of the objectives and programmes

As no quantitative targets for the macro-economic aggregates corresponding to the qualitative objectives have been worked out, an appraisal of the feasibility of the objectives must necessarily take the form of an appraisal of the programme and its project content in terms of its implications for the mobilization of resources and an evaluation of the impact of the programme on the economy in terms of the objectives themselves.

(a) Implications for resources mobilization and implementational feasibility

The Mahaweli scheme is estimated to cost Rs. 11,000 million. Adding to this the estimated costs of the other irrigation and power projects and also such cost estimates as are available for the projects in the other schemes so far announced, the annual investment expenditure (for a five year period up to 1983) required by the programme can be very roughly estimated of Rs. 3,340 million[1/]. [54] Extrapolating current trends in fixed capital formation (excluding irrigation and power) future annual capital expenditure outside the programme could be about Rs. 7,000 million. This gives total annual investment requirement of about Rs. 10,500 million[2/]. This is twice the fixed capital formation in 1977 (taken as the pre-programme year) and would amount to 33 per cent of the GDP of that year. Actual fixed capital formation in 1976-1977 was at an average of 17.5 per cent of the GDP . These figures illustrate the magnitude of the investment effort required; investment may well need to exceed 25 per cent of the GDP in the coming years. The local cost component of the programme can be estimated at Rs. 2,000 million per year and at least this much needs to be met by additional annual domestic savings. This amount represents an increase by 43 per cent over the average domestic savings in 1976-1977 and if added to the savings of those years would amount to a savings ratio of 24 per cent of the average GDP of 1976-1977 as compared to the actual (average) savings ratio of 16.9 per cent. This illustrates the magnitude of the

/domestic

1/ Excludes a few medium sized irrigation projects outside the Mahaweli complex, the investment necessary for the activities resulting from the Mahaweli scheme, some metropolitan region development projects and the South West coastal water supply schemes.

2/ A rough estimate based on unconfirmed data and crude assumptions.

domestic resources mobilization task which is before the country. The savings ratio would need to be sustained at levels much above 20 per cent in the coming years in order to supply the domestic resources required as well as to curb the inflationary pressures that will be generated by the massive foreign capital inflow expected.

The implications of the programme (entirely a public sector programme) for public capital expenditure are equally heavy. The additional capital expenditure entailed by it represents an increase of 150 per cent over total net[1/] public capital expenditure in 1977 signifying that an increase in public expenditure by 2 1/2 times is required in the coming years. Government budgetary savings have for the most part in the past made only a negative contribution to public capital expenditure (section 1.1). Does the future promise any better prospects? Given a successful revitalization of the productive sectors (a current objective) some increase in government revenue can be expected but the programme itself is not likely to lead to any substantial widening of the present (narrow) tax base, a pre-requisite for an appreciable increase in revenue. The agricultural incomes generated by the new irrigation projects are likely to remain outside the tax net work because the direct tax system of the country is totally unaccustomed to the siphoning off of such incomes. On the other hand as cultivation expands the government's current transfers (fertilizer and producer subsidies) will tend to increase in proportion. Revenue from the activities of the EPZ will be negligible because of the generous concessions on direct and indirect taxes granted to it. Hence the bulk of the budgetary savings effort will have to take the form of current expenditure reductions; reductions cutting deeper into welfare expenditure than the ones effected in 1977[2/]. Such reductions in the short term, however, cannot go below a floor that will be set by the democratic framework of the country and social conditions. It would thus appear that the transfer of savings from the private sector to the government for budget financing[3/] which was about Rs. 2,000 million in 1977 will have to double itself in the future years in order to meet at least the local cost component of the programme.

/Much

1/ Net of sinking fund contributions and amortization payments.

2/ To mobilize resources for the programme, food subsidies were revised in 1977 by tightenning the eligibility criteria. The total of all forms of subsidies still remaining, however, amount to Rs. 3,500 million or 34 per cent of government receipts in 1978.

3/ Non-bank market and non-market borrowing.

Much of the savings required will therefore have to be provided by the private sector. Sufficient evidence is still not available to determine whether the sharp increase in the savings ratio from 14.3 per cent in 1976 to 19.4 per cent in 1977, consequent to the rise in the interest rates, is the beginning of a new trend or not. The bulk of the increase in savings was most likely a reflection of a mere transfer of assets. The employment and incomes that will be generated by the programme are not the sort that will be conducive to an increase in the marginal rate of savings in the short term; the pioneer settlers in the new lands will be only struggling for their livelihoods. The saving capacity of the household sector, the largest single contributor to savings, is already much impaired by the prevailing inflationary pressure which is likely to gain further momentum with the injections of the massive proposed. It would, even take a turn for the worse if an excessive resource to expansionary financing is necessitated by a shortfall in savings. Thus future domestic resource mobilization would depend largely on how the two factors of price stability and private savings would interact.

The implication of the programme for foreign resource mobilization through external aid[1/] is an additional annual inflow requirement of Rs. 1,340 million which should be compared with the net long term capital inflow of Rs. 754 million in 1977; the highest so far on record. Such capital inflows have already shown a threefold increase from their average in 1976-1977, and a further threefold increase will be called for in the coming years. The mobilization of external resources through foreign aid, though a formidable one, holds out some promise of success. The government entertains optimism about future foreign aid. At least one of the major irrigation projects (outside the Mahaweli Complex) is wholly foreign financed; the Sri Lanka Aid group which met in June 1978 has already pledged Rs. 6,100 million for normal investment (54 per cent higher than the amount pledged in 1977) and will meet again in December 1978 to take up separately the financing of the Mahaweli scheme. [55]

/The

1/ The government expects to finance the entire foreign component of the programme through foreign aid. Problems of mobilizing Sri Lanka's own resources for future import financing and future balance of payments problems are analysed in section 3.6 below.

The capacity of the economy to absorb the proposed investment is an equally important question. The proposed irrigation projects entail the development of 86,720 acres of new lands (a bunching in the last years of the programme is to be expected) and the settlement of about 34,700 families annually.[1/] The stupendousness of the task becomes apparent when compared with the highest achievement in the past for a single year for lands under major irrigation schemes, viz, about 20,000 acres of new land developed and about 6,000 families settled. There are certain other indicators of the absorptive capacity. Underexpenditure of government allocation for capital expenditure is normally about 25 per cent and that for irrigation and power development is even slightly higher; the utilization rate of foreign capital assistance committed to the country in the 1960s stood at an average of 65.7 per cent. [56] Past experience in major irrigation schemes has been that while the headworks construction may progress according to schedule, as they were undertaken by large foreign firms on contract, the voluminous ancillary work connected with the distributary system, the mapping out of land, and the development of farms and infrastructure falls much behind schedule. Besides this there are other problems that will be magnified when an unusual volume of construction as is necessitated by all the 4 schemes of the programme is to be carried out in a compressed period. The country's normal stock of skilled personnel has already suffered a severe depletion due to a heavy outflow of engineers since late 1960s [57] and an equally heavy outflow of middle grade technical personnel and skilled workers (mainly to the Middle East) which began in the more recent years. Hence an import on a large scale of technical personnel would be necessary to expand the absorptive capacity. Of equal importance as construction is the development of human settlements and viable communities in the new lands for which resources and man power need to be deployed on a large scale. The experience so far, even in the earlier projects of the Mahaweli scheme implemented at a more liesurely pace, has been a relative neglect of this aspect of land settlement. [58] If due to a preoccupation with the more glamorous and high tempo construction activity, this social aspect gets pushed to the periphery, the mistakes of the past will find themselves repeated in the new lands.

/(b)

1/ In addition there are about 21,300 acres (annually) of existing lands benefiting from these schemes which will have to be resettled.

(b) Impact of the programme on the economy - in terms of the objectives

1. Revival of the productive sectors -- The package of policy measures adopted for the achievement of this objective, i.e., enhanced input and replanting subsidies,[1/] investment incentives and import liberalization, has been conceived in relation to those visible impediments to the progress of these sectors as were experienced in the recent past, i.e. an inadequate infusion of capital and inputs. These no doubt are serious impediments and it is necessary that they be removed, but the presupposition that their removal is sufficient for the achievement of the objective is incorrect. There are other impediments, equally serious, for the elimination of which no clear policies/measures have yet been formulated e.g. the lethargy, inefficiency and lack of motivation which pervade the management units of the plantations (section 1.2 (c)) and industries (section 2.10) of the public sector; the weakness of the institutional infrastructure (section 1.8) or the absence of any sections 3.2 and 4.6) in the domestic agricultural sector; organizational problems in the co-operative forms of management (sections 1.2 (c) and 1.8). Thus the problem of reviving these sectors is not a one that can be solved in its entirety by the simple means of adding more inputs and capital. The more difficult organizational and institutional problems need to be solved to ensure the efficient and rational application of these inputs and capital in order to eliminate the present underutilization of resources prevailing in the different sectors (section 1.2 (d)).

2. Employment - Given the likelihood of the present unemployment of 1 million rising to 1.5 million by 1983 the programme's emphasis on domestic agriculture is a correct one because it is this sector that has the greatest capability (already proven, section 1.5) of contributing to the employment objective. The irrigation schemes will enable the settlement of about 173,400 families or 850,000 persons. Assuming 1 labour unit per acre, 433,000 persons will find direct agricultural employment while an additional number, say 216,500, will find employment in allied pursuits such as input supplies, trade and other ancillary activities. The generation of employment in secondary activities, such as agro-based industries has had a very poor

/record

1/ Although they do not form a component of the investment programme they are the means for the achievement of an efficially announced objective.

record in the colonization schemes of the past. The new projects would be able to show better results in this respect if the crop pattern in the lands is suitably diversified. One problem that may be encountered in the exercise of settling people on the new lands would be that of finding a sufficient number of capable people from areas outside who will readily come forward to take up these lands. (see section 2.C) Besides providing new employment, the irrigation projects by enabling a more intensive cropping of 107,500 acres of existing lands will eliminate the underemployment of the cultivators of these lands.[1/] The construction of these projects itself possesses a considerable employment potential, estimated at 125,000 in the peak year, [60] which could, however, be enlarged tremendously if labour intensive methods are chosen. The question is whether the tight time schedule and the quickened pace of an accelerated work programme will permit the exploitation of this potential to the fullest by the use of such methods which particularly require intensive and patient organizational efforts.

The other two schemes in the programme, housing and urban development, with their high construction component will contribute substantially to employment directly and also indirectly through their linkage effects. No such optimism is possible with the EPZ. There are many compulsions which propel foreign investors in developing countries in the direction of labour saving methods and modern standardized technology. [61] The FTZs elsewhere show a high capital/employee ratio. Assuming a low estimate of $5,000 per job (very much lower than the ratios generally observed elsewhere) the EPZ will have to attract an investment of $ 100 million to provide 20,000 jobs but this investment figure has been exceeded only in the FTZ of the Philippines. [62]

3. Output growth - Production capacities of two key sectors of the economy i.e. agriculture and energy, will be expanded tremendously by the programme. It will cause an assured water supply to 433,600 acres[2/] of new land and 107,000 acres

/of

1/ An underemployment of an estimated 33 per cent of the work force has been reported for the Mahaweli development area. [59]

2/ Excluding lands already covered by stage I of the Mahaweli scheme. The acreages given are the total extents covered by all the proposed irrigation projects i.e. including those outside the Mahaweli complex.

of existing lands, implying that the extent of land under major irrigation schemes, which at present is 509,910 acres, will be more than doubled. The installed capacity in hydro-power will also be more than doubled by the addition of 586 MW[1/] to the present 420 MW. Two questions concerning this capacity expansion can be raised from the stand point of the growth objective. First, whether output growth will be in proportion to this massive "horizontal expansion" in view of the chronic underutilization that afflicts existing resources (section 1.2 (d)). The present impediments which prevent an efficient utilization of the physical resources may pervade the new assets (agricultural and irrigational) and make them languish in low productivity unless painstaking measures are taken to eliminate these impediments altogether from the entire agricultural sector. Second, whether new production capacity will have the ability to generate a cumulative and a self sustained process of growth. Past colonization schemes have failed to evolve as dynamic growth/centres and have been poor sources of surpluses and government revenue required for further capital formation. The growth impulses of the new capacity could be better harnessed if the emerging agricultural activities were to establish a symbiotic relationship with the industrial sector. To make this a reality two things must happen; the crop pattern of the new areas should be suitably diversified and the industrial sector should be appropriately restructured. The very process of creating this new capacity, i.e. construction activity, could itself become a propeller of growth. Given the backward linkage effects of construction, a convergence of all the construction activities of the different schemes could transform the construction sector into a "leading sector" in the Rostowian sense[2/] during its period of progress. To exploit the full potential of these linkages it is necessary to ensure an inter-industry co-ordination on the basis of demand for and supply of locally producible intermediate goods or materials. There is no evidence of such a perspective in the present programme.

/The

1/ Excluding one power project already completed under stage I of the Mahaweli scheme and including two proposed power projects outside the Mahaweli complex.

2/ W.W. Rostew's concept of the "leading sector" in economic growth.

The EPZ is expected to serve the growth objective by enabling an export-led growth in industry which will in turn stimulate growth in the domestic sectors through its linkage effects and a transfer of technology. Much cannot be expected by way of backward linkage effects. Of the 15 ventures approved so far only 5 have anything to do with local raw materials. [63] The country's past experience with multinational firms has shown -- a reluctance on their part to reduce the foreign raw material content or to engage in domestic research on materials and technology and a marked tendency to jealously protect their technological monopoly i.e. preventing its transfer, by the use of restrictive practices and the laying down of conditions. [64] Devoid of an organic link with indigenous science and technology and cut off from the pattern and growth of domestic resources and domestic demand, the FTZ is likely to remain an enclave sector without promoting the long term structural conditions needed for self sustained growth.

4. Improvement of balance of payments -- The correction of the over-valuation in the currency[1/] and the measures for the revival of production could pave the way for a better export performance. The EPZ has been conceived as a cheap short cut method of obtaining the scarce critical factors in export development, viz, external finance, competitive technology, managerial and technical skills and access to world markets. Sri Lanka being a late comer this field, not having much to offer by way of high labour efficiency or a political system of the sort that inspires confidence among foreign investors, cannot be expected to succeed in attracting much foreign private capital in competition with the older FTZs. The operations of foreign investment in the country have hitherto shown disappointing results in net foreign exchange earning due to high import dependency, high cost of transfer of technology[2/] and "transfer pricing" practices. On the foreign exchange saving front, the proposed irrigation projects have the capability of eliminating the bulk, if not the whole, of food imports (rice, flour, sugar) which in 1977 accounted for 34 per cent of total imports of Rs. 4,000 million at post-budget prices. (For a further analysis see section 2.5). The ability

/of

1/ A freely floating exchange rate in place of the two tier exchange rate - in 1977

2/ A survey reveals that the foreign exchange outflow on patents, fees, royalties, salaries and dividends etc. was 62 per cent of the total foreign investment by 20 firms for 3 years. [65]

of hydro-power to effect a saving of petroleum imports (24 per cent of imports or Rs. 1,441 million) would depend on the extent to which electrification of industry and transport is effected.

(c) Over-all evaluation

In terms of strategy, the programme reflects a treatment of the problems of unemployment and output growth as static issues to be settled by large chunks of investments and establishes priorities for them more or less on the basis of their direct contribution to the objectives. This preoccupation with their direct contribution in combination with a tendency to keep in view the procurement of external aid when designing projects has resulted in giving high priority to irrigation projects with high capital and foreign exchange components and long gestation periods . In the context of the heavy implications for domestic and external resources (section 2.2 (a)) the traditional approach of regarding colonization as a static concept and evaluating it in terms of short term costs and its immediate impact on the objectives is hardly valid. The appropriate strategy should be one that incorporates projects which use the different resources in proportion to their relative scarcity or abundance while stimulating a growth that would be dynamic and self-sustained over time. A pre-requisite for the development of such a strategy is the processing of realistic alternatives by evaluating them in the sectoral as well as the national context. The alternatives available do not seem to have been sufficiently explored -Examples- (a) Projects for the exploitation of the unutilized potential of present assets which are low in capital and foreign exchange content, high in labour absorption, relatively quick in response, yet consistent with long term needs because they are capable of stimulating a dynamic growth in output necessary to generate future savings and to provide future employment or the further alternative of combining such "vertical expansion" projects with a few new ones aiming at "horizontal expansion". Admittedly, such large new projects as are adopted in the present programme are necessary for the country's development in the future but the crucial issue here is not so much the establishment of priorities among projects but the determination of the timing of such projects so that they contribute to both the short and long term requirements. It is in the timing of projects that the programme is unrealistic, (b) The numerous small schemes for hydro-power, low capital intensity and high labour intensity, [66] by way of a short term expediency, (c) Alternative arrangements for foreign direct investment.

/The

The programme which reflects a preoccupation mostly with the manipulation of one variable, i.e. capital, gives insufficient attention to another variable in the aggregate production function, i.e. organization and institutions, which is a powerful factor in raising productivity levels.

2.3 Likely growth path of the social and economic dimensions

With a continuation of present policies the country will be led into a development path which will be different in certain respects from the one traversed so far. A more effective integration of the objectives of growth, employment and income distribution is to expected. Whereas in the past a disproportionate amount of employment was absorbed by the services sector resulting in idle labour (section 1.5) much of future employment would be in the productive sectors leading to an increases in commodity production which for a country with Sri Lanka's economic structure is the real stuff of growth. By the same token the emphasis in income distribution will be shifted from a distribution of an existing surplus (as in the past) to a distribution of an increment of output through employment in the numerous small farms that will be created. In the industrial sector, however, the tendency would be for a concentration of incomes and wealth (as in the 1960s) due to the generous tax concessions and the entry of multi-national corporations. The EPZ would emerge as a high wage sector ushering in a "labour aristocracy". The anticipated diversification of crops in the new lands could lead to a closer integration of agriculture with industry in a symbiotic relationship. The import liberalization policy[1/] will prove to be a doubled edged weapon; while weeding out the not so desireable units it will suffocate certain very desireable import substitution activities, e.g. subsidiary food crops and handloom textiles[2/]. The inflationary potential of the massive investment expenditure calls for the countervailing power of unprecedented increases in domestic production and savings in order to preserve internal as well as external stability. The "consumer paradise" of the West which has been introduced to every locality by the import liberalization policy has weakened the saving propensities. Hence the inflationary pressures spilling over into imports would bring about balance of payments difficulties.

/2.4

1/ The dismantling of import and foreign exchange controls in 1977.

2/ This has already taken place to the detriment of employment and production.

2.4 Likely impact of external economic and political factors

The recent model of the new world economic order by W. Leontieff[1/] projects (in Scenario A) a slowing down in the rate of growth of developed countries from the historical 4.5 per cent to a future 3.9 per cent. The effects of such a trend on Sri Lanka's external resources mobilization through aid and trade would be very unfavourable. Due to a diversification of markets in the past, Sri Lanka is now less dependent on the developed countries for the marketing of her traditional exports. Among the several determinants of the demand for tea, the major export, the income of the consumers is a relatively less important one. These considerations, notwithstanding, a healthy economic growth in the developed countries would be most beneficial for these exports because it is the demand from these countries that determines the general price level of these commodities. For example, the high priced quality teas of Sri Lanka are marketed exclusively in the developed countries; the level of rubber prices is dependent on the fortunes of the automobile industry of these countries. A growing support for tea from these countries would be extremely valuable in the context of the excess supply situation forecast for the future.[2/] A slowing down of their growth would push still further into the periphery the prospects of removing the obstacles to the marketing of tea obtaining in these countries.[3/] Sri Lanka's bourgeoning non-traditional exports, e.g. gems, industrial manufactures and tourism, are almost wholly dependent on the markets of developed countries. If the protectionist tendencies were to gain strength when growth slows down many of these activities will find hardly any ground to stand on, e.g. the rapidly expanding garments exports dependent entirely on the quota policies of the EEC; the manufactures of the EPZ. Sri Lanka's aid dependent investment programme requires that aid inflow should double or treble

/over

1/ The future of the world economy. W. Leontieff et al.

2/ FAO projections.

3/ High internal taxes and other restrictions.

over the present level and that it should be supplied on more favourable terms and conditions. The terms and conditions of aid received by Sri Lanka have improved[1/] considerably in recent times but they still fall short of the norms laid down by the DAC (OECD). The net total outflow of official aid of the Sri Lanka aid group countries still amount to only 0.30 per cent of their GNP (1973) [67]. All these point to the potential for improvement in aid, but such may not materialze or the present trends may even be reversed if growth slow down in the donor countries. Also, the present high debt service burden of Sri Lanka[2/] and the high proportion of external liabilities acquired on non-concessionary terms[3/] signify that the donors should have enough economic strength to be able to respond to a likely future request for a rescheduling of loans.

2.5 The role of food production

Besides the crucial role of safeguarding the nutrition of an expanding population at an adequate level, there are specific economic roles that this sector has to play in the context of the present programme. Given a high income elasticity of demand for food among the poorer classes which will be lifted up to higher income levels in the future and the high proportion of food expenditure in the total outlay of households,[4/] a rise in the demand for food is to be expected. In this context the task of containing future inflationary pressures falls mainly on the food sector because it is the behaviour of food prices that exerts the greatest influence on the general price level of the country. Its other role would be to provide foreign exchange for the growth effort by import substitution for which there is considerable scope - viz. present self sufficiency, in rice 80 per cent, in cereals (rice + flour) 60 per cent.

Table 7 evaluates the future contribution of the paddy sector (rice being the dominant food item) in terms of estimated requirements projected to 1983, estimated supply taking into account the new acreage that will be added and estimated import substitution requirements.

/Table 7.

1/ Improvements in the grant component in aid, the grant element in loans, repayment periods, interest rates and grace periods.

2/ Over 20 per cent of export earnings.

3/ 40 per cent of the external liabilities consist of loans obtained on commercial terms.

4/ 50 per cent of the total outlay of 92 per cent of the households.

Table 7. Estimates of future paddy requirements and production

		1983 million bushels
1.	Paddy requirements, assuming 97 kgs per capita rice consumption	109.0
2.	Paddy requirements, assuming 103 kgs per capita rice consumption	115.4
3.	Paddy requirements, assuming 137.6 kgs per capita rice & flour consumption	154.2
4.	Total paddy production with new lands - Assumption A	146.5
5.	Total paddy production with new lands - Assumption B	138.3

Annual rates of increase	Production	Paddy acreage	Sown acreage
Assumption A	13.8	4.6	7.9
Assumption B	12.0	4.6	5.8

NOTE - for paddy requirements, the population was projected to grow at 1.8 per cent annually with 1976 as base. The new acreage estimated as in section 2.2 b(3). The increase in output in the existing acres benefiting from new irrigation is included in the production estimates. The harvested acreage is taken at 90 per cent of the sown acreage.)

The per capita rice consumption of 97 kgs (line 1) is the average for the last two decades and this is raised to 103 kgs (line 2) as an allowance for an increase in the consumption of this preferred food grain.[1/] The per capita cereal consumption of 137.6 kgs (line 3) made up of 103 kgs rice (as in line 2) and 34.6 kgs flour, a recent average, is higher than the recommended allowance[3/] of 127 kgs/capita for cereals. Production estimate in line 4 assumes that the whole of the new lands will be devoted to paddy and that the yield will be 70 bushels/acre which is the present average for two areas (comparable lands) under major irrigation schemes. Production estimate in line 5 assumes that only 70 per cent of the new lands will be devoted to paddy (in the absence of a final crop plan) and that the yield will be 90 bushels/acre. Paddy production in the lands existing at present is assumed to remain constant at its figure for 1976, i.e. no allowance is made for yield increases in the existing lands.

Estimates under both assumptions show that rice imports can be easily eliminated. If all the new lands are devoted to paddy and give the same yield as the current average in comparable lands i.e. 70 bushels/acre, the cereals deficit will be reduced to a negligible 5 per cent from the present 40 per cent while if only 70 per cent of the new lands is devoted to paddy yielding a potential 90 bushels/acre, the cereal deficit will be reduced to a comfortable 10 per cent. In each case the per capita consumption of cereals will be higher than the present level. Thus the food sector has the potential of feeding an expanding population at a higher nutritional level while eliminating almost the whole of cereal imports.

/2.6

1/ A rough estimate used in a recent study. [68]

2/ A nutritional minimum.

2.6 Availability of energy and other natural resources

Wood, the major source of energy is showing signs of depletion with the rapid denudation of forests. A potential of 1,600 MW in hydro-power was identified in the 1960s but the former economic viability limits for sites are getting outdated with the increases in oil prices. Hence fresh surveys would disclose a much higher viable potential [69]. A deficit in electricity supply is forecast for 1981, but it could easily be covered even without the accelerated Mahaweli scheme by enhancing the capacities of present schemes (adjustments at low investment cost), by intensifying their utilization and by tapping the potential of small rivers, streams, the cascade systems and the numerous irrigation works with 3 MW to 5 MW capacities [70].

The minerals found in Sri Lanka, i.e. those in situ deposits and alluvial deposits, which provide the materials for construction, industry and exports are quite ample for future requirements. The use of modern methods of mineral detection has helped to discover new deposits of known minerals, e.g. iron ore and deposits of minerals hitherto not known to exist in the country, e.g. rock phosphate (a fertilizer material) and copper magnetite [71]. Iron ore, garnet sand and peat are available in deposits of economic potential but not worked at present.

2.7 Population trends and demographic structures

If the current trends in fertility continue, the country could be expected to complete the third phase of demographic transition before the turn of the century and show a replacement growth rate of 1 per cent. Given the observed relationship between educational level and fertility (section 1.7) the likely future improvement in the standard of literacy will enable current fertility trends to continue if not by raising the age of marriage further (it is already at a high level) then by providing the pre-requisites for a success of family planning. According to a recent survey, a small family value orientation is rapidly replacing the traditional attitude [72]. Total population growth rate, however, will tend to rise when the repatriation of Indian labour ends in 1983.

The youthful age structure of population contains an enourmous built in potential for a further rapid increase in population in the future. The different medium projections in the currently available population projections

/suggest

suggest population growths by -- 72 per cent in 1971-2000 [73]; 33 per cent in 1971-1991 [74]; 74 per cent in 1970-2000 [75]; 80 per cent in 1968-1898 [76]. According to the different low projections the population would grow by -- 51 per cent in 1971-2000 even if fertility were to fall dramatically in 1981-1986 to half its 1971 level; 39 per cent in 1970-2000 even if the transition to replacement fertility were to occur immediately. According to projections of age structure [77] the present child dependency ratio of 70 per cent would fall to 42 per cent (medium) or 35 per cent (103) by 2000. The pre-school group will be most significantly affected; the number increasing by only 18 per cent (medium). Those in school going age would increase by 22 per cent (medium) or decline as in the low projection. These illustrate the main advantages of a continuation of fertility decline. The growth of the working age group numbers, however, will not be affected up to 1986 by fertility trends because the persons who will join the labour force are already born. Their number would increase by 100 per cent (medium) or 82 per cent (low).

2.8 Problems of labour utilization

Elimination of the over-all imbalance in the labour market calls for capital investment in order to raise the level of demand for labour. Assuming a requirement of Rs 15,000 per job[1/] an additional annual investment of Rs 4,400 million is required in 1978-1983 to eliminate the imbalance; a figure much higher than the annual investment cost of the present programme (section 2.2(a)). The problematical nature of the implications for the mobilization of resources for labour utilization can be illustrated in another way. Assuming that labour force will increase 2.7 per cent (a medium projection) and that labour productivity will increase at 3 per cent, output should grow at 5.7 per cent to absorb the current additions to labour force and at over 7 per cent to take in the backlog as well. It means that investment should exceed 24 per cent of GDP.

Unemployment is also a problem of structural imbalance as reflected in the gap between youth expectations and job opportunities (section 1.5). Capital investment by itself cannot solve this. It requires several supporting measures to eliminate the present tendencies for a misallocation of labour i.e. overstaffing in public sector offices and a shortage of labour in activities

/such

1/ A crude estimate of the capital/labour ratio in the domestic agricultural sector.

such as toddy tapping [78], tea plucking,[1] fishing. One possible measure is the narrowing or even a reversal of the wage differentials between many different types of jobs; the other is the training of skills to match opportunities and effecting attitudinal changes through educational reforms. The latter was attempted by the new scheme of education (vocational emphasis) implemented in 1971-1977. With the change of government, however, this policy lost its continuity.

Solutions to several other problems have to be found in order to secure a fuller utilization of labour. Appropriate technology needs to be developed (section 2.8) and efficient management forms suitable for small and medium production units need to be evolved (section 1.8). Organizational and institutional arrangements need strong policy support in order to convert labour into capital through rural works [80]. A problem that the present programme may encounter is that of moving a large body of persons from outside areas to the development areas as settlers or as workmen at construction sites. A preservation of the labour labour ratio in the wet zone, social welfare measures, more even distribution of incomes and various socio cultural factors have weakened the pressures for migration from the developed and congested wet zone to the undeveloped lands of the Dry Zone [81]. These tendencies would have been strengthened by the expectations aroused by the recent land reforms, because the desire of the landless in the wet zone is to gain some land in their own areas.

The high rate of underemployment (section 1.5) poses a problem of labour utilization. It calls for a transfer of labour from low productive high productive sectors, land tenurial reforms, crop diversifaction and provision of supplementary employment. The underutilization of the labour of those who are in employment is a problem that has taken serious proportions in recent times due to overstaffing in the public sector and the selection of candidates unsuited to the jobs under political patronage. It calls for a reallocation of such manpower or an improvement of their qualifactions. The problem of underutilization of labour is found among the first generation of industrial workers unused to factory discipline, as manifest in labour indiscipline and a high rate of absenteeism, and among the educated youth who are frustrated because the employment they have is not of the type they aspire to.[2]

/2.9

1/ The plucking of about one-third of the acreage in two tea plantations (planted with V.P. tea) of the State Plantations Corporations was abandoned for several years due to a shortage of tea pluckers [79].

2/ The majority of the educated youth employed in a modern textile mill, where the work is not strenuous and remuneration and welfare facilities satisfactory, expressed dissatisfaction with their jobs and treated their present employment as a temporary expedient till they found better ones [82].

2.9 The development and adoption of appropriate technology

Indigenous technology which combines local skills with local materials received an impetus from the balance of payments trategies adopted in the 1970s. Its future progress would depend mostly on the impact of the present policies on the technologies already evolved or evolving and those yet to be developed. The import liberalization policy could be expected to affect adversely certain technologies which developed along with the process of import substitution e.g. equipment for and methods of processing fibre of banana, dyes from local clays and plants, motor and machine spares, agricultural implements and tools manufactured by village smithies (under the DDC programme), reclamation of usable machine components, diversification of field crops with pulses and subsidiary food crops, hand loom textiles. Another group of technologies will be similarlyaffected by the new policy of issuing sugar and flour (subsidized) at reduced prices - e.g. small scale sugar cane crushers, manufacture of sugar substitutes, intercropping in coconut lands and crop diversification of "highlands" of the Dry Zone with substitutes for wheat. Such technologies that were developed for exportable products will be unaffected by these policies; their progress being dependent on their competitive export marketing ability - e.g. improvements (in design and methods) in certain handicrafts and cottage industries, diversification of marginal tea and rubber lands with minor export crops, extraction equipment for vegetable oils, stills for essential oils, rubber seed oil, cashew processing equipment, machines for coir. Certain other recently developed technologies could be expected to gain wider adoption because of their individual merits, e.g. solar-wind-biogas for energy (relative cheapness), upgraded rubber wood (shortage of timber), locally fabricated two wheel tractor (adapted to local conditions and cheap), the single pass rice husk fired par boiler-dryer[1/] (greater economy and efficiency).

The investment programme has far reaching implications for appropriate technology. The projects themselves are capital intensive. Being foreign aid dependent they will, as past experience has shown /84/, bring in the modern technologies of the developed countries. The tightness of the construction schedule of an accelerated scheme restricts the opportunities for the adoption of labour intensive technologies. The bringing into cultivation of a large area within a short period would impose a severe strain on the animal power and labour resources available in the area creating difficulties for the adoption of animal ploughing and manual or hand implement methods of cultivation.

/The

1/ Paddy processing machine. A local innovation that has gained international recognition /83/.

The double cropping of land facilitated by assured irrigation would in any case necessitate the speedier work of mechanical tillage [85]. The EPZ would emerge as an enclave of the most modern technologies (section 2.2(b)(2)). The construction of houses, under the housing scheme and in the new settlements would be an opportunity, if the correct policies are followed, for utilizing the recent work done on upgrading traditional building materials and for adopting indigenous construction techniques.

The paddy sector offers a tremendous scope for the adoption of appropriate technology. Improved cultural practices have not gained the wide adoption that HYV has won (section 1.2(b)). Much work remains to be done in improving the efficiency of traditional implements, e.g. ploughs. Among the new hand implements so far developed, the row seeder failed to gain wide acceptance because of the physical discomfort in its use and the rotary weeder which reduces the tedium of work found itself a loser to chemical weedicides, the use of which is so much more easier [86]. The decrease in the use of fmaily labour for cultivation operations (in certain areas) [87], the decline of traditional exchange labour [88] and the tedium of manual operations have all tended to restrict the adoption of manual transplanting and weeding methods. The question of animal power versus mechanical power in tillage is likely to settle more in favour of the latter unless policy intervenes more purposefully in favour of the former. Farmers have got used to the use of the relatively cheap mechanical power made available by the liberal tractor imports in the 1960s [89] and the draught buffalo population has dwindled to a level that is sufficient only for a fraction of the paddy acreage [90] due to neglect of animal breeding, decrease in pastures and increased slaughtering for meat.[1/] These trends will be strengthened by the current policy of liberal tractor imports. Sociologically it is to be expected that the new generation of youthful farmers with educational backgrounds would be even less willing to adopt buffalo ploughing.

Factor prices were brought closer to reality with the floating of the Rupee and the unprecedented increase in interest rates in 1977. But at the same time, the generous capital allowances and tax concessions provided for investment in fixed capital improved the relative attractiveness of capital. Future relative factor prices would much depend on what will

/happen

1/ No efforts have been made to exploit the potential of the large unused herds roaming in the jungles and of breeding animals in the coconut lands.

happen to wages under the likely inflationary pressures. The adoption of appropriate technology is closely related to the evolution of effective management organizations for small and medium sized enterprises. The only solution to this problem is the development of true co-operation and self-management (section 1.8). The development and the adoption of appropriate technology has hitherto been ad hoc in manner and unco-ordinated. For appropriate technology to be a success it requires the formulation of a firm national technology policy and a co-ordination of the efforts of those engaged in the development, application and transfer of the various technologies.

2.10 The role of public enterprises

Controlling almost all the commanding heights or the key areas of the economy, 1/ public enterprises are strategically placed to play important roles in the achievement of current development objectives. Their contribution to output has been disappointing in the 1970s. Whereas their number increased by 43 per cent in this period their contribution to GNP rose only to 23 per cent in 1975 from an average of 20 per cent in 1965-1970 despite the facts that they enjoyed special privileges in obtaining foreign exchange allocations and bank finance and that they had no marketing problems. They need to overcome a whole host of problems, mostly of the organizational and institutional type, in order to be able to make a contribution to output, which is in proportion to the claim they exercise over the national resources. Among such problems are -- lack of incentives and managerial expertise, heavy handed ministerial interference with operational autonomy, superfluous and mismatched staff, problems of labour management. 2/ Their linkage effects are not strong enough to stimulate growth around them. Contrary to expectations and deviating from the pattern obtaining in developed countries, even those enterprise which produce intermediate and final goods have low linkage effects /91/. They need to develop a closeness with other domestic sectors while reducing their import dependence for materials and machinery.

/As

1/ Public enterprises account for the following shares in the outputs of the different sectors -- manufacturing 32 per cent (about 50 per cent of industrial output with a monopoly over basic industries), electricity 74 per cent, transport and communications 46.5 per cent, finance 94.5 per cent, trade 10.6 per cent, all the "estates" in the plantations sector (section 1.4).

2/ In 1971-1977 when there was a textile shortage and when there was a sufficiency in the installed capacity to meet the country's needs, capacity utilization at the National Textile Corporation could not rise above 45 per cent due mainly to absenteeism and other labour problems.

As 44 per cent of the output of public manufacturing enterprises consist of producer goods they will be called upon to play a key role in the implementation of the present programme. Their production programmes should be firmly carried out so as to prevent repetitions of the bottlenecks caused by them in the past, e.g. the acute cement shortage which held up the progress of construction (section 1.2(f)).

Public manufacturing enterprises have to first climb down from their present high capital/employee ratio of Rs 51,000, as compared to Rs 6,700 in the private sector, before they could make a contribution to the objective of increasing employment. Several public enterprises are engaged in import substituting, but their contribution to the balance of payments objective will remain a very limited one until they shift to an import substitution in net terms rather than in gross terms by turning emphatically towards local raw materials and technology. The net foreign exchange saved by 15 such enterprises[1/] in 1974 has been estimated at about only 6 per cent of the total merchandise imports of that year [92]. With the nationalization of plantations, the responsibility for about 65 per cent of the export earnings now falls directly on the public enterprises. There is a tremendous task for them here in reviving these plantations and raising their productivity levels (section 1.2(c)).

The massive resource mobilization necessitated by the present programme requires that public enterprises should generate surpluses over and above their own investment requirements for the financing of other sectors. Their past record, however, is that they have been net drawers on savings of the rest of the economy[2/] and not users of rather than net contributors to government revenue. The industrial enterprises will have to improve their rates of return from the present average of 4.5 per cent to levels exceeding the government bond rate of 10 per cent or better still to levels exceeding the long term market rate of interest of 12 per cent to 15 per cent in order to play a positive role in resource mobilization.

/3.

1/ These are the enterprises actively engaged in import substituting. Of them only 6, accounting for one fourth of the total net value added, had over 50 per cent of the total materials used in local materials.

2/ More than two thirds of their financial requirements is obtained from outside.

3. SRI LANKA AND THE NEW INTERNATIONAL ECONOMIC ORDER

The recent model of Leontief[1/] advocates a movement towards a new international economic order in which the developing regions would have increased shares in total world capital, output, trade and consumption. A narrowing of the gap in absolute terms between the incomes of developed and developing countries by the year 2000 is visualized. In order to make this a reality each region has to achieve certain targets set for it by the model in respect of the different macro-economic variables. This section explores critically the feasibility of Sri Lanka achieving the targets set in the central Scenario X of the model[2/] for the region to which she belongs, i.e. Asia (low income).

3.1 Investment and growth

The target of 6.7 per cent of growth of GDP set for Asia is higher than the rate of 6 per cent adopted in the recent national plans of Sri Lanka (table 1). This growth target implies a per capita GDP rate of growth of 4.4 per cent when the model adopts a medium projection of 2.3 per cent population growth rate for all developing countries. This target is again higher than past national plan targets as well as past achievements, but it should be noted that given a continuation of current fertility trends (sections 1.7 and 2.7) as reflected in the available population projections, which project falls in population growth rate to 1.1 per cent (low) and 1.4 per cent (medium) by the last decade of the century (section 2.7), Sri Lanka would be able to achieve the per capita GDP target with a rate of GDP growth lower than the regional target; say, with a rate of 6 per cent or less. Alternatively, if Sri Lanka attains the regional GDP growth target of 6.7 per cent, her per capita GDP should grow at 5 per cent (or more) which incidentally is the model's target for all developing countries and also happens to be the per capita GDP growth rate implied by the adoption of a low population projection[3/] in the alternative Scenario C which maps out a development path towards the new world order which is relatively easier than the one depicted by Scenario X. These illustrate the extent of the support that the country would receive from its demographic trends in making its contribution to the new world order.

/On

1/ W. Leontief, op. cit.

2/ An impression of a development path.

3/ This low population projection of 2 per cent itself is higher than the current population growth rate in Sri Lanka, i.e. 1.8 per cent.

On the basis of a historical capital output ratio of 3.5 (section 1.1) an investment of 23.5 per cent of GDP is necessary to achieve the growth rate of 6.7 per cent a formidable task judged by the historical standards of the country (section 1.1). The current programme with its emphasis on capital intensive projects would raise the capital output ratio to a level higher than in the past calling for an investment which could well exceed 25 per cent of the GDP in the period immediately ahead. Needless to labour the point again (section 2.2) that a shift to an alternative strategy involving low capital intensity would make the task easier for the country.

A diversion of resources for capital formation consistent with the growth objective has been worked out in the model as a set of targets for the different uses of resources. Table 8 compares current trends in Sri Lanka with these targets.

Table 8. Final internal use of resources (percentages)

		Private consumption	Gross fixed investment	Public consumption
Asia (low income)	1970	69	15	14
Asia (low income)	2000	63	21	14
Sri Lanka	1970	68	18	13
Sri Lanka	1976	72	17	11
Sri Lanka AV: Annual change 1970-1976		1.0	-0.2	-2.0

Source: Central Bank of Ceylon.

Note: Final demand components as percentages of the sum of private and public consumption and gross capital formation.

It is expected in the targets for the region that the share of public consumption would remain constant while the share of private consumption would decline releasing resources for the enhancement of the share of investment. The share of private consumption in Sri Lanka was below the regional average for the base year, 1970, but has risen at 1 per cent per year in the succeeding period at the expense of the respective shares of public consumption and investment. The unusually heavy inflationary pressures could account for this behaviour of the share of consumption, but there are certain

/basic

basic factors in the income consumption function of the society which need to be corrected before its share could be brought down from its present level to that of the regional target.

A determinant of private consumption is private disposable income and this is a variable which at its absolute level and its rate of growth could be controlled and regulated by appropriate government policies. The past pattern of government intervention (intentional or unintentional) and non-intervention in private disposable income has tended more to raise its level rather than lower it. Consumer subsidies, the major means by which government's resources were transferred to the household sector were curtailed in 1977 when the rice and sugar subsidies were placed on a selective basis, but the flour subsidy still remains a universal one and the total of all forms of subsidies amounting to about Rs 4,000 million exceeds the annual investment cost of the present programme (section 2.1). This points to the scope still available for a diversion of resources to investment, but as food subsidies on their present selective basis, form the major instrument of supporting the basic needs of those below the poverty line much may not be achievable immediately without bringing the growth objective into direct conflict with the social objectives. However, the redistribution of an existing surplus has now come to the end of its tether in a setting in which per capita incomes are not rising rapidly. Hence any income redistribution in the future has to occur through the growth process itself. The present emphasis on agricultural development may enable this sector with its already proven abilities of effecting a consistency between output growth and income distribution to build up the employment incomes of the poor so that income supplements in the form of food subsidies could be withdrawn as the households cross the poverty line. Social welfare expenditure (health, education, housing), another form of government influence on private disposable incomes, provides hardly any scope for manipulation in favour of investment. These expenditures are already much restrained; the per capita real welfare expenditure declined by 25 per cent in 1970-1976. Inadequate returns or losses of public enterprises, if they are the result solely of the pricing policies, are a means by which resources are transferred to augment private disposable income. But the experience with public enterprises in Sri Lanka shows that only a portion of this transfer could be considered as a "true" transfer,[1/]

/the

1/ As in clear cut cases such as petrol where the subsidy element is clearly shown up by a cost-price analysis. This involves the sale of imported petrol at a loss to the government.

the other portion being simply the price paid for the inefficiency and low productivity of these enterprises (sections 1.2(c) and 2.10). Most of them enjoy monopoly powers and have no difficulty in marketing their products. Even those producing merit goods, the prices of which are determined by social welfare policies, should not find it difficult to at least break even and this is true also of public enterprises in the services sector. Thus a mere upward revision of prices should not be the means of regulating private disposable incomes; price revisions should be only an integral part of a programme of rationalizing these enterprises. The absence of any direct taxation of domestic agricultural incomes has left rural disposable incomes virtually uncontrolled. This area offers some potential in the context of the development of domestic agriculture. A beginning could be made by charging an irrigation water rate which is justified on other grounds as well;[1/] compulsory provident fund schemes for farmers could be incorporated with the guaranteed price schemes for their products.

With a given level of private disposibale income the level of private consumption will be determined by the propensities to consume and save. Given the weak saving propensity in Sri Lanka, special efforts are needed to stimulate it. The 1970s witnessed a rapid expansion of the institutional facilities for saving and the whole island is covered by a still expanding network of institutions. The savings and fixed deposits of co-operative Rural banks, for instance, have risen dramatically from Rs 16 million in 1970 to Rs 116 million in 1976. The rates of interest on savings deposits were made very attractive in 1977[1/] and in its aftermath the savings ratio rose to 19.4 per cent from an average of 13.4 per cent for the preceding 6 years. However, it is too early to say how much of this is the result of a stimulation of new savings (section 1.1). The response of household sector's savings to the rate of interest is normally not a strong one in Sri Lanka [93]. The response of this sector, however, is likely to stronger to more imaginative schemes specially adapted to its motivations for savings. As has been observed, 66 per cent of household sector savings goes into physical assets such as dwellings and agricultural machinery [94]. Schemes enabling the acquisition of these specific assets would be a means of promoting such purposive savings. In the long run, Sri Lanka has reason to be optimistic about a favourable impact of the expected decline in child dependency ratio (section 2,7), on household savings. Given the present unemployment rate, the effective dependency ratio would be much higher than the dependency ratio of 76 per cent estimated on the basis of demographic data. Some easement on this with favourable results for saving can be expected from future employment expansion.

/On

1/ As much as 18 per cent for 18 months fixed deposits.

On the other hand, with the expected employment expansion under the pgoramme, the consumption expenditure level could be expected to rise when low income categories with high consumption propensities begin to earn higher incomes. The consumption propensity itself is likely to be strengthened under the international demonstration effect which is now given rein by the import liberalization. The argument of incentive goods could be raised as a counter to this. However, incentive goods which are popular among rural folds include certain items which are in fact capital goods in the local context, e.g. bicycles, a widely used transport equipment (persons and materials) in the dry zone; sewing machines for a cottage garment industry. A selective import/manufacturing policy combined with hire purchase facilities could canalize these consumption propensities in the direction of such incentive goods. The biggest enemy to future savings would be the inflationary potential of aid financed investment. The experience of the late 1960s shows that the consumption ratio could rise at a time of aid financed growth.[1/] The extent to which monetary and price stability is maintained will be the major determinant of savings in the coming years.

Given the weak saving capacity of the private sector, the greater responsibility of mobilizing resources devolves on the public sector. Its past record in this activity has been a very disappointing one. The foregoing discussion points to certain possibilities -- a selective flour subsidy, the improvement of the productivity of public enterprises, broadening of the tax base by bringing in rural incomes through various devices such as water rates. For most rural incomes taxes/levies/charges of this sort may be the only means of transferring resources from private consumption to public saving.

The model visualizes an increased reliance on domestic means for the region when it projects a fall in the ratio of net foreign capital and aid to investment in plant and equipment from 51 per cent in 1970 to 18.8 per cent in 2000. The recent ttend in Sri Lanka has been a rise in this ratio[1/] from an average of 39 per cent in 1970-1971 to an average of 45 per cent in 1975-1976. This trend is likely to continue in the coming years, under the impact of the present programme which opts for heavily aid financed projects and opens the door, through the EPZ, to an inflow of private foreign capital, hitherto a negligible factor in the economy. A commencement of the decline in this ratio can be expected only in the second half of the 1980s.

/3.2

1/ The ratio of net long capital inflow to the sum of transport equipment, machinery and other equipment. It excludes supplier's credits used to finance the import of such items. (Sources: Statistical Pocket Book of Sri Lanka 1973 and 1977.)

3.2 Sectoral growth pattern and changes in economic structure

The sectoral growth pattern expected by the model for Asia is one that will enable this region's economic structure to approach that of highly developed countries. Hence the primary sector (agriculture and minerals) is projected to grow at a lower rate than GDP while the secondary sector (manufacturing) will lead the economy by growing at a faster rate than GDP. The tertiary sector (all services) will also be a fast growing sector. Table 9 compares the recent trends in Sri Lanka with the projected regional trends of sectoral growth and sectoral composition.

Table 9. Sectoral growth rates and economic structure

(Average annual growth rates)	GDP	Agriculture & minerals	Manufacturing	Services
Asia (1970-2000)	6.7	5.4	7.8	8.7
Sri Lanka (1970-1977)	3.1	1.5 (agriculture)	1.8	4.2
		47.0 (mining & quarrying)		

(Percentage shares in total) Output		Agriculture & minerals	Manufacturing	Utilities & construction	Services
Asia	1970	33.2	29.9	8.3	28.6
Asia	2000	19.4	32.3	11.0	37.3
Sri Lanka	1970	35.0 (agriculture)	13.8	6.4	44.9
		0.7 (mining & quarrying)			
Sri Lanka	1977	32.0 (agriculture)	12.6	4.7	48.7
		2.6 (mining & quarrying)			

Source: Central Bank of Ceylon.

Note: Sectoral composition of GDP, Sri Lanka, at constant factor cost prices.

/Reasons

Reasons for the very poor growth of Sri Lanka's agriculture in the 1970s, at slightly above one fourth of the regional target are explained in sections 1.2(a), 1.2(b) and 1.2(c). It is this slow growth that has reduced its share of GDP from 35 per cent to 32 per cent. However, as a result of the very sharp growth of the output of gems since 1973,[1/] the combined share of agriculture and minerals shows a fall by only 1 percentage point, still remaining at a level higher than that for the region in the base year. Considering the tremendous weight that agriculture carries in respect of all the macro-economic aggregates and its massive growth potential, it is this sector that would seem to have the qualifications to play the role of the leading sector in the immediate future. Given a full utilization of its present unutilized potential, i.e. underutilized physical resources and the underutilized yield potential of HYV, as well as the new capacity that will be added, this sector should be able to reach the regional target. Its paddy sub-sector has already shown its ability to grow at rates as high as 12 per cent in the 1960-1965 (table 3); the ground work for its progress is well laid out, its infrastructure well developed and its farmers are shedding their traditional subsistence outlook and are becoming entrepreneurially oriented. It needs, inter alia, a more effective transfer of technology, improved input supplies and an effective institutional framework in order to perform at its best (sections 1.2(b) and 1.8). Special attention should be drawn to three urgent problems of this sector which call for immediate corrective action. Firstly, despite three decades of experience in rural credit, Sri Lanka has not been able yet to evolve a viable small farmers' finance scheme. The default rate on farm credit in 1966-1977 is 43 per cent. Faced with the dilemma that the farmers will not be able to increase production without the vital credit, the government follows a "soft" policy regarding lending criteria and recoveries.[2/] This policy should be revised and efficient systems of credit scrutiny, supervision and administration should be introduced in view of the large sums of money involved.[3/] Secondly, an

/efficient

1/ A phenomenal three fold increase in this year, and very high rates of growth sustained thereafter.

2/ Rural credit is covered by a Central Bank's guarantee up to 75 per cent and a 100 per cent refinance facility. Eligibility criteria have been relaxed; new loans are given even to defaulters on previous loans, loans in default are cancelled periodically.

3/ The disbursements in 1977 amounted to Rs 500 million.

efficient rural institutional network is necessary for irrigation and cultivation discipline, farm services and planning. The vacuum that has emerged in this sphere when the new government disbanded the CCs and APCs (section 1.8) has yet to be filled with an appropriate institutional arrangement. Thirdly, given the support of a firm policy instead of the present "stop go" policy, the subsidiary food sector, as it has already demonstrated so amply in 1973-1975 (section 2.3) could add enormously to the tempo of sectoral growth. Hence import and tariff policies relating to imported food stuffs and price and subsidy policies relating to their local substitutes should be suitably adjusted. Plantation agriculture now faces a much improved world price situation and no severe problems of marketing its products are foreseen for the immediate future. One impediment to its progress, the overvalued currency has been removed bu the high tax burden still remains (section 1.2(c)). Subsidies for inputs and replanting have been increased to keep in line with current costs. There is a tremendous underutilized potential in this sector, the greatest impediment to the utilization of which is the weak, inefficient and lethargic management so characteristic of public enterprises (sections 1.2(c) and 2.10).

The share of services in Sri Lanka's GDP is much larger than the regional average for the base year. Its present rising trend needs to be reversed and its ahre be reduced considerably in order to approach the regional target. Though tourism may not continue to display its past buoyancy, other services, i.e. public administration, social services, finance, trade and transport stand to expand rapidly in the coming years with the development of new lands and the investments in the EPZ. This sector suffers from a presence of idle and superfluous manpower (section 1.5) and its output which is computed on the basis of the payroll cannot be its "true" contribution to the GDP. Its "true" output can be known only when such manpower is reallocated, a step necessary for its revitalization. The negative growth of the construction sector in the 1970s (table 1) has reduced its share from 6.4 per cent in the base year, which itself was much lower than the regional average, to 4.7 per cent. This trend is likely to be reversed when the high construction component of the present programme gets under way. In the context of the massive housing requirements (section 4.1), this sector has the potential for approaching the regional target.

/For

For the base year 1970, Sri Lanka's economic structure presents a relatively unbalanced pattern compared with that of the region in respect of the shares of manufacturing, construction and services in the GDP. The dual task of correcting this and of placing the economy on a course that will enable it to approach the economic structure of the developed region through the achievement of the targets for the Asia region has to be fulfilled by the manufacturing sector. In its performance so far it has not been able to rise above one fourth of the rate of growth projected for the region. Will it be able to play this role of a leading sector as expected by the model? None of the sharp stimuli, such as the discovery of new materials/deposits or an access to new markets or a technological breakthrough (innovation, invention) which could transform this sector into a leading sector within a short time obtain in present day Sri Lanka. There is, however, the anticipated massive increase in electricity supply which would improve its prospects. Nevertheless, a rapid growth of this sector has to come from the growth impulses emanating from a restructuring and a reorientation of industry. The liberalization of imports in 1977 could be expected to produce some such restructuring the effect. But the sudden exposure of a set of local industries, weakened by a lack of technological progress and machinery replacement in the preceding years of foreign exchange scarcity, to fierce competition from outside, could prove to be harmful to most import substituting industries whether they be the desirable ones or the not so desirable ones. There are many activities of the former type which combine appropriate technology with local materials e.g. motor spares, hand-loom textile (section 2.9) which should be enabled to win a permanent place in the industrial structure through adequate protection. A major structural change needed is the emergence of a firm export orientation because industrial growth on the basis of import substitution has by now almost exhausted its possibilities. The EPZ holds out some promise of raising the ratio of exports to production from its present low levels (table 5). Given the present high dependence on imported materials and machinery (table 5) the growth of industry will always be constrained by the availability of foreign exchange and its linkage effects will benefit foreign countries. Hence another major change required is the establishment of more roots in local materials and technology for which there is much scope. The bulk of the country's materials is exported in the raw/semi - processed form, e.g. rubber, coconut oil and fibre, graphite, mineral sands. An increased net

/value

value added could be retained in the country by exporting them in the form of manufactures, e.g. tyres, soap, mattresses, crucibles, electrodes, paints, instant tea. It is such industries that should find a place in the EPZ. If the crop pattern of the new lands is so designed it could provide the basis for a symbiotic relationship between agriculture and an appropriately restructured industry, e.g. two-wheel tractors, implements, fertilizer and consumer goods from industry to agriculture; cotton, jute, soya bean, fruits, sugar cane from agriculture to industry. In sum, in order to play the role of a leading sector, industry should first succeed in freeing itself from its present constraints, i.e. domestic market and foreign exchange.

3.3 The structure of manufacturing

The model expects the structure of manufacturing to undergo a change with machinery and materials growing faster than light industry and increasing their respective shares in the manufacturing sector. Table 10 compares the trends in Sri Lanka with the targets for the region.

Table 10. Growth rates and structure of manufacturing

(Average annual growth rates)	Light industry (consumer goods)	Machinery and equipment	Materials (intermediate goods)
Asia 1970-2000	7.1	8.7	8.0
Sri Lanka[a/] 1970-1974	5.6	0	10.4
(Percentage shares in total)			
Asia 1970	57.5	18.5	24.0
Asia 2000	50.7	24.1	25.2
Sri Lanka[a/] 1970	46.6	8.0	45.4
Sri Lanka 1974	41.8	5.6	52.6

Note: a/ A breakdown under this classification is available only up to 1974. Values at current prices were deflated by the implied GDP deflators. As the data have been collected (Central Bank) by annual surveys, the coverage has not been constant.

The retardation of the manufacturing sector in the 1970s has been explained in section 1.2(d). Consumer goods industries were able to show

/some

some growth in the context of a scarcity of imports. They now have to adjust themselves to the new conditions i.e. exposure to foreign competititon and the increased cost of imported inputs. The former calls for some selective protection and the latter an increased substitution of local materials for imported ones which will in turn also benefit the materials subsector. Light industries in general stand to gain from an expansion of market resulting from future agricultural development. Those in the food group which use local materials and are export oriented e.g. preserved fruits, juices and sea foods could grow rapidly if the present shortage of materials, e.g. fruits, is overcome by devoting some of the new lands for that purpose. Those which are fully export oriented, but dependent on imported inputs, e.g. garments, could also grow rapidly if access to foreign markets improve, e.g. EEC quotas, and also produce local linkage effects if local materials, e.g. local textile, are substituted for imported inputs. On the whole, light industry should not find it difficult to reach the regional targets.

The rapid growth of intermediate goods (faster than regional target) and their enhanced share (twice as high as the regional target) was due mainly to the commencement of petroleum refining in this period and the rise in petrol prices. The massive construction component of the present programme along with the immense housing requirements (section 4.5) offer a wide scope for a rapid and a sustained growth of materials provided that production capacities are sufficiently expanded, e.g. cement, iron and steel, and technologies are improved, e.g. bricks and tiles. An appropriate crop pattern in the new lands would be an additional stimulus to the growth of materials.

Thought the smallness of the economy and the absence of certain minerals strict the scope for the expansion of machinery and equipment, yet with the adoption of imaginative policies a substantial capital goods sector could be built up to reach even the level envisaged by the model. Recent experience shows that the adoption of appropriate technology is a strong stimulus of local production of capital goods, e.g. the locally fabricated rice mill, two wheel, tractor (section 2.9), fishing boats. A degree of protection is also necessary, because import restriction in 1970-1977 stimulated local ingenuity in the fabrication of machinery and equipment. The manufacture of farm machinery, implements and water pumps could be linked with the proposed agricultural development. Items such as, penstocks, control gates, irrigation valves, parts of power house machinery, required by the proposed irrigation and power projects could be manufactured locally. Alternatively, the foreign suppliers contractors could be requested or required to do the manufacture/assembly of such items within the country,[1/] possibly in the EPZ as these items could also be exported.

/3.4

1/ A similar proposal arose in connection with the supply tenders for Mahaweli Stage I and foreign manufactures indicated their willingness as they could have used Sri Lanka as a base for export production as well. The proposal, however was abondoned /95/.

3.4 Food and Agriculture

The model expects agricultural (food) output to grow at 5.1 per cent annually in developing countries, Group II, to which Sri Lanka belongs. The implied per capita food growth rate of 2.9 per cent will help to narrow the gap in food supply between developing and developed countries. Production estimates for Sri Lanka in table 7, section 2.5, show that paddy output could grow annually at 12 per cent to 13.8 per cent in the coming years in consequence to the development of new lands. If, however, due consideration is given to the untapped yield potential of existing lands and the historical (1952-1972) yield trend of 2.7 per cent annual increase,[96] future output could be expected to grow even at higher rates than those estimated in table 7. As it is likely that the country's cereals requirements could be nearly met by domestic production[1/] even at an enhanced per capita consumption level (line 3, table 7) by mid 1980s, rice production needs to grow thereafter by about 1.4 per cent or 1.7 per cent only to keep abreast with population growth. If, as it is likely, output were to grow at higher rates, say, 3 per cent to 4 per cent, (a 5 per cent annual growth rate was observed for 1960s, table 2) the resultant growth in per capita output by 1.5 per cent to 2.3 per cent could even create a surplus for export.

The model expects nutritional levels in the Asia region to approach those of the developed countries in the period up to 2000. Table 11 compares the situation in Sri Lanka with the targets set for the region.

Table 11. Consumption of nutrients
(per capita/day)

	calories		Proteins (grams)	
	1970	2000	1970	2000
Asia	2000	2400	52	66
Sri Lanka (average 1969-1970)	2290	-	50	-
Sri Lanka 1976	2172	-	46	-
Sri Lanka recommended allowance	2000(M.R.I)	-	45	-
	2200(FAO)	-	-	-

Source: Food balance sheets, Department of Census and Statistics.

1/ It may not be possible to eliminate flour imports altogether, since food habits may require the import of some.

/There

There is no over-all deficiency in Sri Lanka in nutritional requirements. Future cereals supplies appear to be promising. Although the protein intake is not unduly low the position may deteriorate in the future if current trends are not arrested. Food balance sheets for 1970-1976 show a decline in the per capita availability of all protein foods except milk, i.e. pulses, meat, fish, eggs. The twofold increase in the prices of these food items in the last two years has pushed them out of reach even of most middle class households. The average diet needs much improvement in terms of the recommended allowances of protein foods.[1/] A recent study on Sri Lanka [97] projects the requirements of fish, milk and meat to grow at 6.5 per cent, 4.4 per cent and 5.2 per cent respectively up to 2000 on the assumptions that per capita consumption of beef and milk will be doubled and that of fish will increase by 60 per cent over their respective levels in 1970. The high rate of growth achieved by fisheries up to 1970, (about 7 per cent) indicates that with a progressive mechanisation of craft[2/] and the removal of a major constraint, i.e. inadequate knowledge of fisheries resources, fish production could approach the projected growth rate of requirements. In the 1960s, livestock output grew at 4.7 per cent but that was achieved at the expense of a reduction in herds, especially, buffalo. The major constraints to it are the poor quality of feed concentrates and breeding stocks. The best short term prospects are with pigs and poultry. In the long run there is much potential for dairy production in the tea country (mid and high) and in the extensive coconut lands, for beef production on improved pasture in the dry zone. The same study requires pulses to grow at 4.3 per cent annually to reach self sufficiency at double the present per capita consumption level. There is a large potential for pulses which could be realised by -- mixed farming systems, a combination of rainfed and irrigated cultivation in certain dry zone lands, improved non-irrigated farming on lands at present under shifting cultivation, extension of the new HYV, [98] and above all, firm policy support. It should be noted that the subsidiary food sector (which includes pulses) was able to show growth rates of 14 per cent to 35 per cent in 1973-1975, until it was thwarted by a reversal of policy.

/The

	Pulses	Beef	Milk	Fish
1/ Recommended allowance (kgs/year)	10.95	3.65	21.90	24.82
Actual consumption (kgs/year) 1970	5.66	2.12	8.60	12.14

Source: Socio-economic Survey, 1969-1970, Department of Census and Statistics.

2/ Only 26 per cent of craft is mechanised at present.

The model projects the increases in land, yield and output required to fulfill its nutritional targets for the region assuming that the present degree of self-sufficiency will remain unchanged. In table 12, these projections are compared with the projections for paddy in Sri Lanka made in the recent study cited above. The three variants of this projection (up to 2000) rest on three different assumptions, viz. Projection A - elimination of rice imports, Projection B - cutting down flour imports to 1/3 of present per capita level while eliminating rice imports, Projection C - elimination of both rice and flour imports at present per capita consumption levels. For further comparison the estimates of acreage and production for 1983 made in table 7 (presented in the form of indices based at 1970) are set out in the table below.

Table 12. Agricultural output, land and yield
(Index 1970=100)

	Agricultural output	Arable land		Land productivity
Asia (agriculture) 2000	506	113		331
Sri Lanka[a] (paddy)				
Projection A 2000	214	147(Crop acreage)		140
Projection B 2000	256	153(" ")		140
Projection C 2000	278	165(" ")		140
Sri Lanka[b] (paddy) estimates		Paddy Acreage	Sown Acreage	
Assumption A 1983	210	131	152	140(in new lands)
Assumption B 1983	197	131	138	180(" ")

Notes: a/ Chapter XVI of Population of Sri Lanka, ESCAP, 1977. Uses a medium population projection.
b/ Table 7 and discussion in section 2.5.

It will be seen that the new lands would by 1983 be already approaching the requirements projected for 2000. Compare Projection A with estimates on Assumption A. It should be noted that the estimates make no provision for yield increases in existing lands. Given the potential for such increases the growth in output and acreage required after mid 1980s to ensure a higher per capita consumption for the population in 2000 would be a much reduced one.

/3.5

3.5 Changes in the structure of international trade

The model envisages a fast increase in world trade characterised by a particularly rapid expansion of the trade in manufactured goods. Reflecting a greater international division of labour and paralleling the changes in their economic structures, the relative shares of industrial products, industrial materials minerals and machinery in the export structures of developing regions are expected to rise while the relative share of agriculture in their exports would be reduced. A similar pattern of changes is expected to occur in their import structures reflecting their requirements for accelerated development. These regions are also expected to reduce their import dependence on these items; at a relatively slow rate as in Scenario X or at a relatively fast rate as in the alternative Scenario M which expects special measures to be taken by the non-oil regions to increase exports and to reduce their extremely high dependence on imports of industrial goods. Table 13 sets out the data for Sri Lanka for comparison with the targets for Asia.

A dramatic rise in the share of minerals (due to the increase in gem exports and the rise in prices of petroleum) and a fall in the share of agriculture (due to decline in exports of tea and coconut) account for much of the recent changes in the export structure of Sri Lanka. Given a future revival of these crops and a continuation of the present trends in certain minor export crops, agricultural exports are likely to maintain their predominant position in the coming decades. A welcome trend in Sri Lanka in terms of the model's objectives is the rise in the share of light industry exports which may well continue once the EPZ gets under way, but the share of machinery exports will remain most disappointing unless imaginative steps are taken in that direction (section 3.2). Given a stepped up rubber replanting rate (section 1.2(c)) and a successful crop diversification, the share of materials exports could conform to the trend envisaged by the model in the long run. The current trend in the share of invisibles may not continue as tourism and shipping may not expand as rapidly as in the past.

The recent changes in the import structure can be attributed mostly to import restrictions and the oil price hike. The new irrigation projects could bring down the share of agricultural imports in conformity with the

/Table 13.

Table 13. Structures of Exports, Imports and Import Dependence
(in percentage shares of the respective totals)

	Agriculture	Mineral Resources	Light Industry	Machinery and Equipment	Industrial Materials	Invisibles (transport and services)	Sub-Totals	Agriculture and Resources	Manufacturing
Export Structure									
Asia 1970	40.3	11.2	26.9	6.5	5.3	9.9		51.5	38.7
" 2000	16.6	9.3	44.0	13.2	8.7	8.2		25.9	63.9
Sri Lanka 1970	64.3	1.7	0.7	0	23.0	10.3		65.6	23.5
" 1976	49.2	14.8	4.6	0.1	19.9	11.3		64.0	24.6
Import Structure									
Asia 1970	21.1	11.6	15.6	31.8	12.2	7.9		32.7	59.6
" 2000	14.6	13.7	15.6	35.4	13.8	6.9		28.3	64.8
Sri Lanka 1970	39.5	5.8	10.7	16.1	20.5	7.3		45.3	47.3
" 1976	32.0	23.9	4.7	11.7	21.0	6.6		55.9	37.4

Import Dependence (Imports as % of total requirements)

	Asia			Sri Lanka		
	Scenario					
		X	M			
	1970	2000	2000	1970	1976	
Agriculture	9.0	10.0	10.0	45	45	cereals, estimate for 1983, 5-10% (table 7)
				(95)	(58)	sugar, imports restricted
				(27)	(8)	fish, " "
Mineral Resources	34.0	49.0	47.0		100	for basic metals and fossil fuels
				(78)	(68)	petroleum imports as % of hydropower + petroleum
Light Industry	16.0	15.0	11.0	23	9	(1974) All manufactured consumer goods, imports restricted
				(36)	(19)	(1974) garments and textiles, imports restricted
Machinery & Equipment	50.0	40.0	30.0	85	75	(1974) 100% for factory and farm machinery & transport equipment
				(70)	(55)	(1974) including electrical machinery and equipment
Industrial Materials	29.0	27.0	20.0	74.7	70	Imports restricted (Table 5)

(sources - Customs, Central Bank, Food Balance Sheets, People's Bank Economic Review, June 1977 for energy estimates)

Note - Sri Lanka's minerals exports include gems and products of petroleum refining. All estimates for Sri Lanka are at current prices.)

/model's

model's expectations and by the same token the import dependence in agriculture may be reduced to the levels projected by Scenarios X and M. The import of materials and machinery, which underwent a revival after the recent liberalization of imports, will exhibit a rapidly rising trend along with the progress of the investment programme. This will be in conformity with the trends envisaged for their relative shares by the model, but the same process would increase the degree of their import dependence which is already exceedingly high compared with the regional average. Hence a massive import substitution in materials and machinery is required in order to contribute to the regional objectives. Import substitution possibilities in metallic minerals are confined to the future exploitation of the domestic iron ore deposits (section 2.6). Substitutes for mineral oil imports could be found in -- the major hydro-power projects, the numerous minor and medium hydro-power sources[1/] (section 2.6), solar-wind-biogas energy (section 2.9) and energy plantations if established. Import substitution in industrial materials would much depend on a restructuring of industry, viz -- manufacture of finished goods based on local materials at present exported in raw processed form, industries linked to a suitable crop pattern in the new lands (section 3.2); and also an increased production of materials for which there is much scope, e.g. cotton, hides and skins.[/99/] In fertilizer imports, the paddy sector will require an increase by 50 per cent over its present volume (at present levels of use) for application in the new lands to be developed while the plantations sector will require an increase by 175 per cent over its present volume to fill its fertilizer gap, i.e. the difference between present levels and past peaks/optima (table 4).[2/] Some possibilities of import substitution in fertilizer are found in -- rock phosphate and peat which await the development of appropriate technology (section 2.6) and compost manure which requires a radical change in farmers' attitutes. The respective relative shares of construction materials and machinery will increase in

/conformity

1/ The small hydro-power plants in the tea estates which were abandoned after their factories were connected to the national grid could be brought back into service.

2/ Present use in all four crops (tea, rubber, coconut, paddy) is 197,700 tons. Additional fertilizer required, 344,900 tons.

conformity with the expectations of the model when the programme gets under way, but again the import dependence in these will also tend to increase. Projects heavily dependent on foreign aid and executed by foreign contractors and an EPZ heavily dependent on foreign technology do not provide the environment in which appropriate technologies which are conducive to import substitution in materials and machines could flourish. There are, however, some prospects of import substitution in these items--adoption of indigenous technology and materials in house construction (sections 2.9 and 4.5), manufacture of farm machines (section 3.3). The share of light industry in imports has fallen whereas it should have increased, but the import dependence has fallen in conformity with the model's objectives. Much more could be achieved by this sector if its installed capacity is fully utilised, but as noted earlier, the import substitution in light industry as well as in the industries producing materials (petroleum) and intermediate goods has been mostly a case of substituting some imports for others. (sections 1.2(d) and 2.10).

3.6 Balance of payments problems and remedial measures

The various structural changes (in production, exports and imports) projected for the developing regions would in their wake bring acute balance of payments problems for them under the pressure of which the central Scenario X would suffer a breakdown unless corrective measures are adopted. One possible remedy explored by the model is the flow of an enhanced proportion of the GDP of developed regions to developing regions in the form of long term capital so as to support their basic balances.[1/] Other remedies envisaged are those aiming at a correction of the trade deficits.

Using the rough estimates for the current investment programme of Sri Lanka made in section 2.2 it is possible to present a rather impressionistic picture of the future balance of payments of the country purely for the purposes of illustrating the problems envisaged and exploring the feasibility of the correctives suggested by the model. Table 14 sets out the relevant estimates.

/Table 14.

1/ Trade balance + balance in services account + net long term capital inflows.

Table 14. Balance of payments - 1978-1983
(annual averages)

		Rs million
1.	Imports[a/] (1978-1983) (net of saving on rice & flour imports)	9,900
2.	Exports 1977	6,700
3.	Trade deficit (1978-1983)	3,200
4.	Expected foreign financing for the programme i.e. the foreign cost component	1,340
5.	Deficit in the basic balance	1,860
6.	Additional earnings from 3 major exports if they achieve their past peaks in export volume	950

a/ Method of estimation of imports - Investment goods imports at 20 per cent (currently observed) of extrapolated normal investment + foreign component of new investment; Intermediate goods imports at their current proportion to capital goods imports. Consumer goods imports on an extrapolation of their recent volume trends minus possible import substitution in rice and flour as in table 7. No estimates made for consumer goods imports arising from income increments, and the services account.

A remedy advocated by the model is a change in relative prices in favour of the exports of the developing countries. To clear the deficit shown in line 4 of the above table, the prices of the three major exports need to get on to a plateau which is 40 per cent above the current level. Their prices rose annually at 33 per cent (weighted average) in 1973-1976 but these were most unusual years in world market conditions. According to forecasts, tea and coconut exports are likely to be affected by excess supply situations and competition from substitutes. Natural rubber looks forward to an increased share in world rubber consumption due to the reduced competitiveness of synthetic rubber, but this market is a notoriously volatile one and so vast are the resources behind synthetic rubber that it can take two steps when natural rubber takes one.

Commodity agreements among producers would be a method of improving prices. International tea consultations have limped along achieving agreement only on temporary "holding" operations. It has not been possible so far

/to

to compose the differences among producers[1] to work out a permanent long term strategy.[100] In rubber, the producers have agreed in principle on the need for price stabilization but the ongoing discussions have yet to work out buffer stock schemes. Coconut consultations are confined to the problems of technology and no concerted action on trade has been contemplated so far. While international action may not be so promising, there is much scope for national action for the improvement of export prices, viz -- improving the quality of tea particularly in view of the recent increase in the complaints from foreign buyers; upgrading sheet rubber of lower grades which fetch prices 10 per cent to 30 per cent less than those for superior grades; presentation of rubber in new forms which fetch higher prices,[2] e.g. manufactures based on technical specifications and block rubber.

The model proposes a two pronged remedial action on the trade balance, viz -- import substitution and export expansion. The former and its feasibility has been discussed already in section 3.5. Much export expansion can be achieved by reviving the export crop sector. If the three major export crops were to reach once again their respective past export volume peaks,[3] the additional export earnings (line 6 in table 14) would be sufficient to reduce the estimated basic balance deficit (line 5) by about a half. Besides inputs and investments the critical factors required by these crops for a revival are, improved management systems and plantation managers who are dedicated to the very minutiae of cultivation. (Sections 1.2(c), 1.4 and 3.4). Coconut, which if it regains its past peak would account for half of the estimated recovery in export earnings (so great has been its decline) needs very strong measures for its revival. Crop diversification expands exports while reducing the dependence on the three traditional crops. This policy which Sri Lanka has pursued eagerly has in practice been interpreted as neglect of, or low priority for, the traditional crops. What is needed is not diversification per se but a more efficient resource utilisation over a wide range of

/commodities.

1/ East African countries are over-optimistic about the future of their tea. Their teas stand to benefit under the Lome Convention. Unlike Sri Lanka, India has a large domestic market to fall back on.

2/ Current prices per kg. Sheet rubber No. 1, Rs 4.50; No.2, Rs 4.10. Latex crepe IX, Rs 4.30, No.1, Rs 6.25.

3/ Calculated from the data given in Table 4.

commodities. Because of the environmental advantages, the huge existing sunk investment and the expertise in production and marketing in the plantation sector, export expansion will have to be based very heavily at first on these traditional crops. Hence a detailed evaluation of all schemes for tree crops (subsidies, taxes, controls) is necessary to gain a clearer understanding of all possible options.[1/]

4. TOWARDS A NEW INTERNAL SOCIAL AND ECONOMIC ORDER

Each nation while performing its share of the task of ushering in a new international economic order should also endeavour to narrow the various gaps, economic, social and power, within its society. This view has found articulation in another recent model[2/] which advocates the establishment of a new, egalitarian, fully participatory, non-consuming society at both national and international levels in place of the present unjust and unequal world. Each developing nation should aim at ensuring the presence of three desirable elements in its society. (a) Satisfaction of basic needs -- the production system should be geared to the achievement of this objective. (b) Satisfaction of social needs -- free expression of needs and aspirations of each person through participation in decision making at different levels. (c) Elimination of property as a means of achieving power or personal privileges by evolving forms of collective/group management.[3/] The present section explores the possibilities of ushering in such a development order in Sri Lanka.

4.1 Basic needs, income distribution and economic growth

About 43 per cent of the households in 1970 and 55 per cent of the income receivers in 1973 had incomes below Rs 200 per month (section 1.3) whereas the satisfaction of basic needs, including a recommended diet at an estimated cost of Rs 175 per month/family, required a minimum income of Rs 250, per month/family.[/10/] On the basis of the cut-off line income of Rs 300 per month/family adopted in the selective rice subsidy policy of 1977, 56.6 per cent

/of

1/ A study on these lines is being carried out by the present writer at the request of the government of Sri Lanka and the IDA.

2/ Catastrophe or new Society? A Latin American World Model, A.O. Herrera, et al.

3/ The model refutes the thesis that there are absolute physical limits to resources and goes on to demonstrate the material viability of the proposed new society in which basic needs are satisfied at higher levels. The only constraints to the achievement of this goal are the socio-political ones.

of the population was found to be in need of the support of food subsidies. In the context of this widespread poverty it behoves the state to officially define a poverty datum line to be used as a guide to a programme of building up the purchasing power of those whose incomes are insufficient to satisfy their basic needs.

A considerable progress in more even income distribution had been achieved by a redistribution of an existing surplus (section 1.3) but such redistributive measures alone cannot narrow the gap between the bottom 43 per cent of households having a share of 20.5 per cent of the total income and the top 7 per cent of households enjoying 25 per cent of the total income. A reduction of this disparity calls for positive measures to build up the incomes of the poor, which in the present context of Sri Lanka mean employment for the unemployed masses and a rise in the productivity level in certain sectors, e.g. agriculture, fisheries, small and cottage industry. The emphasis on welfare measures as a method of income redistribution in the past meant that relatively less resources could be diverted to growth purposes and in the ensuing situation of economic stagnation the additional resources required by these measures to cater to an expanding population could not be found. The real per capita social services expenditure, for example, suffered a decline (section 3.1). It is evident that the redistributive measures of the past have by now exhausted their scope as instruments of egalitarianism.

Hence the future strategy for economic equality should be the improvement of the incomes of the poor through productive employment, the relevant development path being one in which the objectives of income distribution through employment, satisfaction of basic needs and output growth are well balanced and unified in a comprehensive approach. The reconcilation of these different objectives at the actual implementational level requires a choice of production sectors, a choice of technologies and a rationalisation of factor prices. Some of these elements are found in the present development policies. Domestic agriculture which accounts for 30 per cent of total physical production could stimulate over-all growth directly through its own expansion and indirectly by saving foreign exchange for other investments while ensuring an adequate supply of food and eliminating the possibility of a recurrence of the food shortages of the past. Its labour absorptive capacity is immense, the only new employment provider among the productive

/sectors

sectors (section 1.5), and it played a major role in past income distribution (section 1.3). Admittedly, a choice has been made of an appropriate sector with already proven capabilities of contributing to several objectives, but once again it is the rationality of the project content that can be questioned (sections 1.2(d) and 2.2(c)). One basic question relates to optimisation -- Could not some capital be saved by adopting alternative schemes and invested in other activities contributing to the same objectives? The other relates to long term growth - Is it possible to achieve a real and sustained growth in the long run with a degree of utilisation that only a skims the surface of the resources? The dynamism imparted by an intensive application of labour to resources, on the other hand, could provide the very drive for a sustained growth. Construction, another sector to which emphasis is given, is also a good choice for comprehensive development, viz., satisfies basic needs (housing and urban amenities) and contributes to output and employment directly as well as indirectly through its pronounced backward linkage effects.

A choice of appropriate technologies is a means of reconciling the three objectives. Present policies and schemes viz., import liberalisation, capital intensive projects and the EPZ do not provide a favourable climate for this (section 2.9). The EPZ, the policy of encouraging private enterprise and the generous fiscal incentives for private investment could lead to a concentration of incomes at the top levels (property owners) as was witnessed in the late 1960s. [102]

A reform of the structure of wages and incentives could be used with great advantage in Sri Lanka in unifying the objectives of growth and economic equality. Production in certain sectors is held back because labour does not move readily into them due to certain social and attitudinal obstacles (section 2.8). These could be overcome to some extent by reducing the heavy differentials in favour of white collar jobs found in the wage structure.[1/] Also, incentive payments schemes for workers (rare in Sri Lanka)[2/] could operate as a remedy for the low productivity in public enterprise (section 2.10) while enhancing the remuneration of workers.

/4.2

1/ Earnings as a multiple of those received by workers with no schooling - Employees with grade 6 to "O" level 2.4, with "O" level 4.2, with "A" level and above 6.8 (Reference [62], ILO).

2/ In one of the places where it is being tried out, the scheme is so defective that it works in the opposite direction by inducing absenteeism (Reference 82).

4.2 Food and nutrition

The consumption of food, though adequate in an over-all sense, (section 3.4) is unevenly spread. A nutritional gap of 659 calories and 25 grams of proteins between the highest and the lowest income groups has been observed.[103] The different surveys have revealed the following -- a protein-calorie deficiency in the income groups below Rs 200 per month (43 per cent of the households), the worst affected being the urban poor; a marginal adequacy in the next upper group, Rs 200 to 400 per month (37 per cent of the households); a consistent inadequacy of calories, calcium, iron and riboflavin and a low level of animal protein intake among the rural poor;[104] high levels of protein-calorie deficiency in the estate areas;[105] a third degree protein-calorie malnutrition in 14 per cent of the most sensitive age group 0 to 6 years[1] and an estimated 1 million children suffering from various degrees of malnutrition.[106] An unevenness in the geographical distribution of nutritional intake has been observed; the districts with problems of supply distribution and those with highly fragmented paddy holdings or with inadequate water supply being the most disadvantaged.

The protein deficiency problems aggravated by the recent escalation in fish and meat prices (section 3.4) needs to be met in the short term. Among the measures that could be adopted are -- firm policy support for low cost protein sources such as pulses and in particular soyabeans for the growing of which land is readily available (section 3.4); the fortification of commonly eaten foods like flour; the extension of the coverage of the present programme of supplying fortified foods to children[2] in view of the high incidence of malnutrition among them (present coverage is 175,000 children); increasing the production of fish, the most acceptable animal protein source to the society, by mechanising the craft and by exploiting the tremendous potential for inland fisheries of the irrigation tanks (existing ones and proposed ones) in which the water levels will be stabilised

/under

1/ A CARE/Ministry of Health Survey in 1975-1976 reveals that 40 per cent in this age group is malnourished, 6 per cent acutely and 34 per cent chronically.

2/ Triposha, a fortified wheat-sorghum-flour biscuit.

under the trans-basin river diversion. Long-term programmes are needed for the exploitation of the potential for pasture and animal husbandry development (section 3.4) which hitherto has been a relatively neglected sector by planners. The harnessing of the production system for the satisfaction of basic needs through such measures is a means by which the different objectives could be unified. There is also the need for a stabilisation of the prices of rice in order to ensure an evenness in the level of food intake.[1/] The paddy buffer stock proposed in 1977 (Budget) awaits implementation.

4.3 Health

Improvement in health conditions in the last two decades has been impressive -- a fall in maternal death rate (per thousand) from 4 to 1, a fall in infant death rate from 71 to 51, a rise in the expectation of life at birth from 57 years to 65.5 years which is a very satisfactory level by international standards. Health Services, however, have failed to expand in proportion to population growth as reflected in the declines in hospital/population ratio from 3 to 2.5 and hospital beds/population ratio from 301 to 286.[/107/] The present levels of health facilities are much below international standards or local requirements -- 3.16 hospital beds per thousand population compared with over 10 in developed countries; 1 health unit per 80,000-120,000 population compared with a requirement of 1:50,000; 25 western doctors per 100,000 population compared with a requirement of 1:3,000; 51 nurses per 100,000 and 1 mid-wife per 7,500 population which are inadequate by norms of efficient service.[/108/] The urban rural gap in the distribution of these facilities is very pronounced due to a concentration of both institutions and trained personnel in the urban areas while the smaller units in the rural areas tend to get neglected. The ratio of doctors per 100,000 population in the different districts range between the lowest at 9.7 and the highest at 52.7 with all the districts except two, which are urban, having ratios below the national average. Likewise the ratio of doctors to 100 square miles range between the lowest at 3.3 and the highest at 95.8 with all the rural districts falling below the national average.[/109/] Health conditions and facilities in the estate sector are woefully below national standards.[/110/]

/About

1/ The prevalence of under consumption revealed by the more recent surveys can be attributed to the high price of cereals in 1973-1975.

About 40 per cent of the morbidity cases and 30 per cent of diseases receiving indoor hospital treatment have their origin in poor environmental sanitation or poor nutrition. This has been the pattern in the last two decades and such is only to be expected because only 20 per cent of the households depends on pipeborne water (mostly in the urban sector) and 34 per cent of the houses has no toilet facilities of any sort (table 15, section 4.5). This also is an area in which a union between the objective of output growth (materials and construction) and that of satisfying basic needs could be forged. While the pattern on diseases calls for a preventive community health orientation, the health services remain heavily oriented to curative services allocating only 20 per cent of total health expenditure to community health.

4.4 Education

With a literacy ratio of 78.5, 82.5 of the population (over 5 years) having had some school education and devoting 5 per cent of the GNP to education (much higher than in most developing countries), Sri Lanka takes credit for having satisfied an important basic need fairly adequately. Nevertheless, there is room for improvement. In 1971, 21 per cent of the children in 5-14 years of age was not attending school, poverty (lack of clothes and food) being the main reason.[1] Completion of education is low; out of 100 pupils entering grade I, 31 reached grade 8, 28 reached grade 10 and 7 reached grade 12.[111] Participation rates of children in 10-14 years age group in the educational system ranged between a maximum of 85.3 per cent in the most advanced district and a minimum of 49 per cent in a backward district with most of the rural districts falling below the national average. The distribution of educational facilities display a marked urban-rural gap.[112] The gap between the estate sector and other sectors is most prominent; the schools of the former providing only a most rudimentary type of education.[113]

The educatfonal system inherited from colonial days turned out persons with qualifications and attitudes mismatched for development needs (section 1.5). The reforms of early 1970s introduced a vocational orientation to the curriculum

/with

1/ A part of this could be attributed to the raising of the school admission age.

with the aim of correcting this and transforming education into a "development sector". It also aimed at equalising educational opportunity by offering a uniform curriculum to the rich and the poor alike. With the change of government in 1977 these schemes lost policy support. The real opposition to these reforms came from the social system itself. The society (parents, teachers, pupils and educational administrators) with its inherited values and attitudes found it difficult to accept an educational process which is preparing persons for a society/economy which does not yet exist. It is to be seen in what way Sri Lanka will unify the objective of satisfying the basic need of education with that of output growth. With a decline in the rate of growth of child population in the future (section 2.7) the savings realized in educational expenditure could be used to improve the educational facilities.

4.5 Housing

Table 15 sets out the chief indicators of housing conditions, viz., housing space, density of occupation, privacy, structural type and amenities.

Table 15. The housing situation 1971 (percentages of total stock in each sector)

Sectors	Extent of overcrowding			Privacy		Structure & Age		Amenities	
	Floor space per occupant sq.ft.	Persons per room number	Units with over 3 per room %	Units occupied by over one family %	One roomed houses %	Semi permanent & temporary structures %	Houses over 50 yrs old %	Units with piped water %	Units without toilets %
Urban	83.2	2.8	41.8	15.4	31.6	37.0	12.7	45.3	19.1
Rural	82.3	2.5	34.4	10.9	28.5	62.0	6.6	4.3	41.5
Estate	50.6	3.4	53.8	6.7	70.9	85.0	13.0	74.8	13.0
All sectors	78.0	2.4	38.0	11.4	34.0	65.0	8.5	20.1	34.3

Sources: From the different tables (1971 Census Data) in housing in Sri Lanka, Marga Institute, 1976; Statistical Pocket Book of Sri Lanka.

/A

A growth of housing units by 12.5 per cent while population grew by 20 per cent in 1963-1971 has resulted in overcrowding which is particularly heavy in the estate sector. Other unsatisfactory features revealed by the above table are -- a high density of occupants taking 3 per room as the desirable maximum; inadequate privacy in 1/3 of the houses, the problem being most acute in the estate sector; more than 2/3 of the houses being semi-permanent and temporary structures. Inequalities in the distribution of housing facilities among the different income groups are very marked. While 7.6 per cent of the households enjoy 28 per cent of the total housing space, 93 per cent of the households occupy 72 per cent of the total housing space. 47 per cent of the houses of the income group below Rs 200 per month provides an average of only 50 sq.ft./occupant while 70 per cent of the houses in the highest income group provides over 200 sq.ft./occupant. The bulk of the houses of the poor is built with non-durable or unsatisfactory material and a high proportion of their houses show inadequacies in space and privacy as shown in table 16, below.

Table 16. Inadequacies in the housing of the poor (units with inadequacies as % of the total units in the income group)

Housing units of income below Rs 200 per month	Light	Ventilation	Space	Privacy
Urban	26.0	28.6	50.0	85.4
Rural	17.0	14.5	45.0	73.0

Source: A sample survey by the Marga Institute, op.cit.

The imperatives in housing are thus clear, viz., while improving sub-standard houses, new houses should be built to clear the backlog, and to replace temporary structures and super-annuated ones. The number of units annually needed to accomplish all these while satisfying the current increase in housing requirements has been estimated variously at 158,400[1/] (1972-1980) and 200,000[2/] (1971-1980). These should be compared with the actual annual addition of 30,717 units recorded for 1963-1971. Households are projected to

/grow

1/ Marga Institute, op.cit. - assuming a clearance of 45 per cent of the backlog.
2/ Population, Sri Lanka, ESCAP.

grow at 2.4 per cent to 3.4 per cent in the next 15 to 20 years.[1/] Future income improvements will mean a demand also for better houses. The present housing scheme plus the houses for the newly settled lands would mean an addition of 55,000 houses per year in the coming five years (section 2.2). Hence programmes are necessary to fill the remaining gap, viz. - institutional loans for housing on concessionary terms; diversion of more resources from upper income housing to housing of the most disadvantaged groups[2/] i.e., the non-estate poor and the estate workers; high priority to low cost construction techniques and materials (section 2.9) since costs of units must necessarily be within the income ranges of the poor. Housing faces no difficulty in uniting with the growth objective; it is a stimulus of purposive saving (section 3.1); it has strong backward linkage effects and better housing stimulates the desire to acquire durable consumer goods.

4.6 Asset distribution and popular participation

While the irrigation projects will enable a distribution of a large number of small farms in the rural sector, the EPZ and the encouragement given to private investment will lead to a concentration of asset ownership in the modern sector as in the 1960s. The people's sector proposed in the budget of 1978 (diffused and broad-based ownership of companies) is still being studied by the government. In view of the fact that 84 per cent of the companies consist of private companies, far reaching measures, e.g. a national unit trust, discriminatory taxation as between closed and broad-based companies, would be necessary to alter the structure of the company sector.

With means of production it is often not so much the question of ownership that is of relevance but the question of the mode of their management and use. The numerous co-operative units set up in 1970-1977 for the management of agricultural and industrial assets (section 1.8) require dedicated efforts to wean them from bureaucratic control and to guide them

/to

1/ On the basis of projected population growth the number of houses needs to grow at 106,900 per year in 1976-2001.

2/ By means of differential interest rates and discriminatory repayment schemes. A scheme of bank loans (concessionary) for the improvement of 84,000 rural houses was launched in June, 1978.

to a correct evolutionary path. The present drift of policy, however, is not in this direction due to several factors -- a new government viewing with distaste the schemes launched by a previous government and the politically biased persons chosen for these schemes under the former regime; an emphasis on the revival of production relegating the task of evolving self-management to the background; the distrust in these organisations aroused by the public exposures of mismanagement by the erstwhile politico-bureaucrats. Whatever lessons in self-management learned by the more progressive members of these organisations would soon be forgotten under the present climate if immediate steps are not taken to revive their morale. The bureaucratic management in public enterprises if replaced by employee participatory management it would satisfy a social need while contributing to growth since training the employeees in shouldering responsibility could well be a remedy to the problem of waste and low productivity in these enterprises. [114]

The new government intends to revive the RDSs and local government bodies (by holding elections), the only two institutions which retained democratic and representative characteristics in 1970-1977 (section 1.8). The local bodies need to come out of their present seclusion (supply of civic amenities) and participate actively in regional development in order to capture public interest and to mobilise local talent. The functions of the APCs and CCs which were disbanded by the new government have now been entrusted to persons often chosen on political grounds and appointed as village cultivation officers. Thus whatever traces there were left of popular participation have been erased out of the agrarian scene and the country has entered a fourth phase within a period of 20 years in its search for agrarian institutions, viz., -- a functionary elected by the cultivators upto 1978, CCs elected by cultivators in 1958-1973, CCs nominated by M.P.s and appointed by government from 1978. There is no doubt that the pre-1973 elected CCs, despite all their defects, were valuable training grounds for cultivators in village level participation. They needed certain modifications, e.g. election of members on a "ward" basis, in order to evolve as truly representative institutions. The new settlements to be established offer an opportunity for planting agrarian institutions embodying the principles of representation, full participation and collective responsibility.

/Appendix

Appendix Table 1.

Weather Conditions and Crops

	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
TEA	Very favourable	Partly favour-able	Unfavou-rable	Favour-able	Very unfavou-rable	Very unfavou-rable	Partly favour-able	Favour-able	Very unfavou-rable (the worst for a de-cade)	Favour-able
RUBBER	Partly unfavou-rable	Partly unfavou-rable	Favour-able	Unfavou-rable	Unfavou-rable	-	Unfavou-rable	Unfavou-rable	-	-
COCONUT	Very favourable	Unfavou-rable	Favour-able	Favour-able	Very unfavou-rable	Very unfavou-rable, also pest attack	Partly unfavou-rable, also pest attack	Favour-able	Very unfavou-rable	Favour-able
PADDY	Very favourable	Partly unfavou-rable	Favour-able	Unfavou-rable	Very unfavou-rable	Very unfavou-rable	Very favour-able	Very unfavou-rable	Unfavou-rable	Favour-able

Source: From data collected for the report on Tree Crops and Incentives being prepared by the present writer in collaboration with others.

Note: In coconut, allowance made for a 1 year time lag.
Rainfall affects the number of tapping days in Rubber.

/Appendix

Appendix Table 2.

Characteristics and Composition of the Committees/Boards of Institutions with Potentials for People's Participation

Cultivation Committees (CCs) (Planning and implementation of agricultural development at village level)	Elected by the cultivators upto 1973. After 1973, nominated by the M.P. and appointed by the Minister. An appointed Chairman.
Agricultural Productivity Committees (APCs) (Planning and implementation of agricultural development at Village Council area level, Using CCs as their village level units)	Introduced in 1972. Nominated by the M.P. and appointed by the Minister. An appointed Chairman.
Multi-purpose Co-operative Societies (MPCSs)(Implementing government's schemes for distribution, marketing and credit)	Elected by the membership upto 1970. After 1970, of the 15 member committee, 9 nominated by the M.P. and appointed by the Minister, 6 elected by the delegates from village branches. A nominated member appointed as Chairman.
The Committees of village branches of MPCSs (Supervisory and advisory functions only)	Committee of 9 elected by the membership.
Divisional Development Councils (DDCs)(Development Planning at the level of electorate)	Introduced in 1971. Majority consists of government officers in ex-officio capacity. A minority of non-officials representing CCs, PCs, MPCSs, RDSs and VCs. M.P. is the Chairman.
Local Government bodies (MCs, UCs, TCs and VCs) - (Provision of Civic amenities)	Elected by registered voters. In the 1970s the bulk of them was dissolved and placed under special commissioners. No elections were held.
Rural Development Societies (RDSs) (Multi-purpose village organisation mainly in community development - voluntary)	Elected by the membership. Suffered a slow death since 1965.
District Political Authority (DPAs) (Regional Development under the decentralised budget)	Introduced in 1973.
(a) District Committee	A deputy minister as Chairman, MPs, local heads of government departments.
(b) Divisional Committee	M.P. revenue officer and other government officer, bank managers, representatives of PCs.

/(c)

Appendix Table 2. (contd)

(c) Village level Committee	Village officers, cultivation officers, teachers, representatives of RDSs, MPCSs, CCs and voluntary organisations.
Co-operative/Collective Farms and DDC co-operative projects (agricultural and industrial enterprises)	Begun in 1970s (Youth Settlements in 1966) Government officers and or members nominated by M.P. forming the entire body or its majority.
Employee's Councils (ECs) (Employee participation in the management of public enterprises)	Introduced in 1972. Elected by the employees. Attempted in a few public corporations, very limited progress.
Advisory Committees (ACs) (Employee's advice in government offices)	Introduced in 1971. Elected by the employees. Attempted in many offices, but failed to take off ground. Original enthusiasm not sustained for long.

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(Note. All the statistical data on macro-economic aggregates, sectors, foreign trade, balance of payments, public finance are from the Annual Reports of the Central Bank unless otherwise indicated. Sources given as "Student Researcher" refer to surveys and studies done by final year (Economics) students of the University, Peradeniya in part fulfilment of their final examination requirements. These studies are on topics approved by the University and conducted under the supervision and guidance of the teaching staff).

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